```
RESULT 2
AW488801/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       source
                                                                                               DEFINITION
                                                                                                                                                                     ORGANISM
                                                                                                                                                                                                          REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                          JOURNAL
MEDLINE
COMMENT
                                                                                                                       ACCESSION
                                                                                                                                    VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                      요
à
                      /dev_stage="ADULT"
/dev_stage="ADULT"
/lab_nost="DH10B (Life Technologies)"
/lab_nost="DH10B (Life Technologies)"
/lab_nost="DH10B (Life Technologies)"
/note="Vector: pT7T3D-pac (Pharmacia) with a modified
polylinker; Site_1: Not I; Site_2: Eco R1; The UNL-P-FN
library is a normalized library representing porcine
ovarian follicles, ranging between 2.0 to 10.0 mm in
diameter, collected during 7 days of the follicular phase
of the pig estrous cycle. This library was derived from
the library UNL-P-F2. The tag is a string of 5-6
nucleotides present between the Not I site and the
oligo-dT track. The library was constructed as described
by Bonaldo, Lennon and Soares, Genome Research 6: 791-806
                                                                                                                                                                                                                                                                                      ä
                                                                                                                                                                                                                                                                                                                        579
                                                                                                                                                                                                                                                                                                                                                                                                           9aggegtettegtggeacteactgegteegtgetgageeteetggeeategegetggage 397
                                                                                                                                                                                                                                                                                                                                                                                                                                                          398 gcagcctcaccatggcgcgcagggggcccgcgcccgtctccagtcgggggggcgcgctgg 457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        518 cecreececececereseserereserereseseration 459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           tgctcctgggcagcctcacgttgtcggatctgctggcaggcgccgcctacgccgccaaca 277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              638 cgcgcatctactgccaggtacgccaacgcgcggcgcctgccggcacggcccgggactg 697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     338 CACGCATCTACTGCCAGGTGCGTGCCAAAGCACGGCCTGCGGGTGCGCCCTGGGGCTG 279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                458 cgatggcagccgcgggcctggggcgtgctcctcctcggggctcctgccagcgctgggct
                                                                                                                                                                                                                                                          DB 11; Length 757;
                                                                                                                                                                                                         6 others
                                                                                                                                                                                                                                                  47.5%; Score out...
85.0%; Pred. No. 9.1e-92;
**ive 0; Mismatches 113; Indels
      /clone="UNL-P-FN-ad-b-04-0-UNL"
/clone_lib="UNL-P-FN"
                                                                                                                                                                                                      80 t
                                                                                                                                                                                 , 1990.
TAG_SEQ=None found"
1 237 c 280 g
                                                                                                                                                                                                                                                      Ouery Match
Best Local Similarity 85.0°
Matches 644; Conservative
                                                                                                                                                                                                        154
                                                                                                                                                                                                      BASE COUNT
                                                                                                                                                                                                                                                                                                        218
                                                                                                                                                                                                                                                                                                                                                                                                           338
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                818
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 878
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        86
                                                                                                                                                                                                                 ORIGIN
                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                           윤
                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
```

```
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Eukaryota; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.

E 1 (bassa 1 to 75)
Gaetano, A.R., Johnson, R.K. and Pomp, D.
Generation and sequence characterization of a normalized cDNA
library from swine ovarian follicles
Contact: Pomp, D
Department of Animal Science
University of Nebraska, Lincoln
Lincoln, NE 68583-0908, USA
Tel: 402 472 6416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Small: dpompeunl.edu

Judigo-dr.track not found, Not I site shown in beginning of sequence is likely internal to the message. The following repetitive elements were found in this cDNA sequence: 495-552,

Seq priner: M13 -29

POLYA-NO.
                                                                                                                                                        601092312
                                                                                                                                                                                                                                                                                                                                                      AI958899 fd05f02.y

    757
/Organism="Sus scrofa"
/strain="University of Nebraska, Lincoln Swine Selection
Lines"

                                                                                                                                                                                                                                                        AL581703
                                                                                                                                                                                                                                                                                                                                                                                                                                         BI181178 757 bp mRNA EST 10-JUL-2001
UNL-P-FN-ad-b-04-0-UNL.sl UNL-P-FN Sus scrofa cDNA clone
UNL-P-FN-ad-b-04-0-UNL 3', mRNA sequence.
                                                                                       BF188941
                                                                                                                                                                                                                                                                                                                                                                                      ALIGNMENTS
                                                                                                           AL543816
AZ733984
                                                                                                                                                                                                                                 AL553876
                                                                                                                                  BG865008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                                                                                        BE91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BI181178
BI181178.1 GI:14655587
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sus scrofa
                                                                                                                                                                                                           000000000000000
215.2
190.2
197.2
179.4
174.4
173.2
168
                                                                                               166.2
1155.6
1156.8
1156.8
1146.4
1135.8
1133.4
1131.8
1130.2
1129.4
1119.8
                                                                                                                                                                                                                                                                            117
115.6
115.6
113.6
110.8
110.8
                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 1
BI181178/c
                                                                                                                                                                                                                                                                                                                                                                                                                                         LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
 Search time 1486.74 Seconds (without alignments) 8651.612 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                602722823
AL560216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      letraodon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 QV2-HT069
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Tetraodor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BI181178 UNL-P-FN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       602980893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    number of results predicted by chance to have a
in or equal to the score of the result being printed,
analysis of the total score distribution.
                                                                                                                                         1 atggagtcggggctgctgcg......cagaaccggctgcagactga 1197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Description
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    B1329992
BF353652
AR004591
AL181451
BG68243
AL170173
B1332488
BG744043
AL560216
                                                                                                                                                                                                                    22703874
        GenCore version 4.5
Copyright (c) 1993 - 2000 Compugen Ltd.
                                                                                                                                                                                             11351937 seqs, 5372889281 residues
                                                                                                                                                                                                                Total number of hits satisfying chosen parameters:
                                                                         ٠.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SUMMARIES
                                                                       January 16, 2002, 20:55:58
                                                                                                                                                                                                                                                                      Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                    nucleic search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BI181178
AW488801
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BF383651
BF329992
BF329992
AK004591
CNS02502
BG682434
CNS012488
BI332488
BI332488
ALS60216
                                                                                                                                                              IDENTITY_NUC
Gapop 10.0 , Gapext 1.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pred. No. is the number of res
score greater than or equal to
and is derived by analysis of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ü
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  em_gss_other:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      em_gss_pln:*
em_gss_pro:*
em_gss_rod:*
                                                                                                                                                                                                                                        seq length: 0
seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         em_gss_fun:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  em_gss_hum:*
em_gss_inv:*
                                                                                                                   US-09-842-316-1
1197
                                                                                                                                                                                                                                                                                                                            em_estfun: *
em_esthum: *
em_estin: *
em_estpl: *
em_estpl: *
em_estpl: *
em_estpl: *
em_estpl: *
em_estro: *
em_estro: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                            gb_est1:*
gb_est2:*
gb_htc:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                            *:ssb_dp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              295
3015
973
1126
960
694
793
886
                                                                                                                                                                                                                                                                                                                   EST:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          %
Ouery
Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14.
117.
119.
119.
120.
120.
                                                                                                                  Title:
Perfect score:
Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2568.8
346.2
2291.8
291.8
2011.8
2011.8
2011.8
2011.8
2011.8
2011.8
2011.8
                                                                                                                                                              Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score
                                                                                                                                                                                                                                       Minimum DB
Maximum DB
                                                  OM nucleic
                                                                                                                                                                                                                                                                                                                   ..
                                                                                                                                                                                              Searched:
                                                                                                                                                                                                                                                                                                                  Database
                                                                       Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Result
No.
```

g ð 윱 ద

ò

ö

ò

```
Query Match
                                                                                                                                                                                                                                                             Best Local
                                                          source
                                                                                                                                                                                               BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      625
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT ,
BI329992
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                            qq
                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                පු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EST . 27-NOV-2000
CDNA clone IMAGE:4194177 5',
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Eukaryota; Metazoa; Chordata; Sciurognathi; Muridae; Murinae; Mus. E. 1 (bases 1 to 725)

NIH-MGC http://mgc.nci.nih.gov/.
NIH-MGC http://mgc.nci.nih.gov/.
Ontublished (1999)

Contect: Robert Strausberg, Ph.D.
Famil: gapbs-r@mail.nih.gov
Tissue Procurement: Jeffrey E. Green, M.D.
CONA Library Preparation: Life Technologies, Inc.
CONA Library Arrayed by: The I.M.A.G.E. Consortium (LINL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/Link at:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Euteleostomi;
Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                     99tgtgcgccttcatcgtgctagagaatctagccgtgttgttggtgctcggacgccacc 194
                                                                                                                                                                                                                                                                                                        255 aggogocogoctacgcogocaacatcotactgtcggggcogotcacgctgaaactgtcccc 314
                                                                                                                                                                                                                                                                                                                       cctcctggccatcgcgctggagcgcagcctcaccatggcgcgcagggggcccgcggt 434
                                                                                                                                                                                                                                                                                                                                                                                                                          435 ctccagtcggggggcacgctggcgatggcagccgcggcctggggcgtgtcgtcct 494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGCCAGTCGCGCTCGCACGCTGGCGATGGCGGTGGCCGCCTGGGGCGCGCGTCGCTATTGCT
                                                                                                                              .
0
                                                                                                         Length 487
                                                                                                                             88; Indels
                                                                                                  28.9%; Score 346.2; DB 10;
llarity 81.9%; Pred. No. 3e-52;
Conservative 0; Mismatches 88;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BF383651 725 bp mRNA
602044538F1 NCI_CGAP_Li9 Mus musculus
                                                     ų
                                                     45
6:791-806, 1996)
TAG_LIB=NIH_BMAP_M_S4
TAG_TISSUE=brain-stems
TAG_SEQ-TCATG"

a 161 c 176 g 4
                                                   176 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               mRNA sequence.
BF383651
BF383651.1 GI:11364943
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mus musculus
                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   house mouse.
                                                    Ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               555 cttgccg 561
                                                   105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      7 GCGGCCG 1
                                                                                                   Query Match
Best Local Simi
Matches 399;
                                                 COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DEFINITION
                                                                                                                                                    75
                                                                                                                                                                                                     135
                                                                                                                                                                                                                                                                                                                                                                                                            375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT
BF383651
LOCUS
                                                BASE CO
```

g

ò

ò a ò

```
/organism="Mus musculus"
/strain="FVB/N"
/db_xref="taxon:10090"
/clone="Inb="NCI_CGAP_Li9"
/lab_host="PHIOB (TI phage-resistant)"
/lab_host="Dis" (Veror: pCNV-SPORT6; Site_1: NotI;
Site_2: SalI; Cloned unidirectionally: Primer: Oligo dT.
Average insert size 1.9 kb. Constructed by Life
Average insert size 1.9 kb. Constructed by Life
Technologies. Note: this is a NCI_CGAP Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
1 (bases 1 to 763)
                                                                                                                                                                                                                                                                                                                                                                                                  Clone IMAGE:5133565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 387
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gcgtccgtgctgagcctcctggccatcgcgtggagcgcagcctcaccatggcgcgcagg 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NIH WGC http://mgc, nc1.nlh.gov/.
National Institutes of Health, Mammalian Gene Collection (MGC) Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           12] gtggtgtgcctggcggtgtgcgccttcatcgtgctagagaatctagccgtgttgttggtg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     508 crecectrerecerrecerrrecerracecereneses
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             328 GCAGTGTGTCTGGCTGTGTGCCTTCATTGTGCTGGAGAACTTGGCTGTGCTCTTGGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             999cccgcgcccgtctccaqtcgggggcgcacgctggcgatggcagccgcggcctggg
                                                                                                                                                                                                                                                                                                                                                                    à.
                                                                                                                                                                                                                                                                                                                                     Length 725;
                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BI329992 763 bp mRNA EST
602980556F1 NCI_CGAP_L19 Mus musculus CDNA
                                                                                                                                                                                                                                                                                                                                                                    85;
                                                                                                                                                                                                                                                                                                                               27.2%; Score 326; DB 11;
81.6%; Pred. No. 1.2e-48;
Live 0; Mismatches 85;
              Plate: LLAM9527 row: k column:
High quality sequence stop: 723.
Location/Qualiflers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         BI329992.1 GI:15014649
http://lmage.llnl.gov
Plate: LLAM9527 row:
                                                                                                                                                                                                                                                                                                                                                               Matches 390 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      mRNA sequence.
BI329992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus inusculus
                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            house mouse
                                                                                                                                                                                                                                                             93
```

ä

```
sequence tags
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Brazil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Simi
Matches 293;
                         KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BASE COUNT
ORIGIN
                                                                                                                                                           REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                   JOURNAL
MEDLINE
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        55
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURES
                                                                                                                                                                                                                                                                                                                                                  TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               7;
                                                                                                                                                                                                                                                                                                                                                                               /db_xref="taxon:10090"
/clone="IMAGE:5133565"
/clone=lib="NCI_CGAP_Lib"
/lab_host="bl108 (T1 phage-resistant)"
/lab_host="lubring (T1 phage-resistant)"
/lab_host="soli; cloned unidirectionally, primer: Oligo dT.
8ife_2: Sali; cloned unidirectionally, primer: Oligo dT.
Average insert size 1 bkb. Constructed by Life
Technologies. Note: this is a NCI_CGAP Library."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BF353652 295 bp mRNA EST 22-NOV-2000 QV2-HF0698-040700-258-d01 HF0698 Homo sapiens cDNA, mRNA sequence. BF353652.1 GI:11312726
Email: cgapbs-rémail.nih.gov
Tissue Procurement: Jeffrey E. Green, M.D.
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:
Plate: LLAMI1327 row: p column: 14
High quality sequence stop: 749.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gctgaaa-ctgtccccgcgctctggttcgcacggga-gggagcgtcttcg-tggcact 356 [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [1] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [1] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [1] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [1] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] | [11] |
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gloggalotgotggoaggogocgcotacgcogcoaacatcotactglogggocgctcac 299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cactgcgtccgtgctgagcctcctggccatcgcgctggagc-gcagcctcaccatggcgc 415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 atggagteggggetgetgeggeeggegeeggtgagegaggteategteetgeattacaac 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gcaggggcccgcgccgtctccagtcgggggcgcacgctggcgatggcagccgcggcct 475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gctcggacgccaccgggcttccacgctcccatgttcctgctcctgggcagcctcacgtt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ъ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ouery Match 24.5%; Score 292.8; DB 11; Length 763; Best Local Similarity 81.0%; Pred. No. 9.7e-43; Matches 426; Conservative 0; Mismatches 92; Indels 8;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      719 TGGGGCGTGCTTATTGCTCGGGCT-GTAACCGCGTGGGTTGGAA 763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          476 ggggggtgtcgctcctcgggctcctgccagcgctgggctggaa 521
                                                                                                                                                                                                                                                                                                     1. .763
/organism="Mus musculus"
/strain="FVB/N"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ø
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LOCUS
DEFINITION
ACCESSION
VERSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RESULT 5
BF353652/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    416
                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
```

```
/organism="Homo sapiens"
//organism="Homo sapiens"
//do.gref="texton:9606"
//clone_lib="H70698"
//dow_stage="Adult"
//dow_stage="Adult"
//dow_organism="head_neck; Vector: puc18; Site_l: SmaI;
//ore='Organism head_neck; Vector: puc18; Site_l: SmaI;
Site_l: SmaI; A mini-library was made by cloning products
derived from ORESTES PCR (G.S. Letters Patent application
No. 196,/16 - Ludwig Institute for Cancer Research)
profiles into the pUC 18 vector. Reverse transcription of
tissue mRNA and cDNA amplification were performed under
low stringency conditions."
Homo sapiens
Bukaryota Metzoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 295)
Dias Neto, E., Garcia Correa, R., Verjovski-Almeida, S., Briones, M.R., Nagai, M.A., da Silva, W. Jr., Zago, M.A., Bordin, S., Costa, F. F., Goldman, G. H., Carvalho, A.F., Matsukuma, A., Baia, G. S., Simpson, D. H., M.J., Soares, F., Breish, A., Geoliveira, P. S., Bucher, P., Jongeneel, C. V., O'Hare, Simpson, A.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Tel: +55-11-2704922

Fax: +55-11-2707001

Famil: astimpson@ludwig.org.br

This sequence was derived from the FAPESP/LICR Human Cancer Genome Project. This entry can be seen in the following URL

(http://www.ludwig.org.br/scripts/gethtml2.pl?ti=0V2&t2=QV2-HT0698-040700-258-d01&t3=2000-07-04&t4=1)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                        Laboratory of Cancer Genetics
Ludwig Institute for Cancer Research
Rua Prof. Antonio Prudente 109, 4 andar, 01509-010, Sao Paulo-SP,
                                                                                                                                                                                                                                                                      Shotgun sequencing of the human transcriptome with ORF expressed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        175 GGCAGCCGCCGCCTGGCGCGTGCTCCTCCGGGCTCCTGCTAGCGCTGGGCTGGAA 116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               990agccgcggcctggggcgtgtcgctcctcgggctcctgccagcgctgggctggaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 11; Length 295;
                                                                                                                                                                                                                                                                                                                 Proc. Natl. Acad. Sci. U.S.A. 97 (7), 3491-3496 (2000)
20202663
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gctcttctgcgtgctcgccttcgtgggcatcctggcgctatctgtgcacctac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  h Similarity 99.3%; Score 291.8; DB 11; Similarity 99.3%; Pred. No. 1.3e-42; 93; Conservative 0; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Seq primer: puc 18 forward
High quality sequence stop: 295.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                  Contact: Simpson A.J.G.
```

```
808
                                                                                                                                                                                                                                                                                                                                                                                                                     /codon_start=1
/protein_id="BAB23393.1"
/db_xref="G1:12835864"
                                                                                                                                     1. 3015
/organism="Mus musculus"
                                                                                                                 Location/Qualifiers
                                                                                                                                                                                                                                                                                                          /tissue_type="lung"
/clone_lib="RIKEN f
/dev_stage="adult"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             δ
                                                                                                                                                                                /strain="C57BL/6J
                                                                                                                                                                                                                                                                                                                                                                              511. .1659
/note="putative"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="putative"
767 c 707
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2999. .3004
/note="putative"
3015
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          22.7%;
llarity 57.1%;
Conservative
                                                                                                                                                                                                                                                                                          /sex="male"
                                                                                          XhoI. Host:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity
Matches 542; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         733
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     polyA_signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              polyA_site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                       source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                754
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  397
                                                                                                                                                                                                                                                                                                                                                                          CDS
                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ŏ
                                                                                                                                                                                                                                                                                                                                                                                   2 (bases 1 to 3015)
Scarlnci, P., Shibata, Y., Hayatsu, N., Sugahara, Y., Shibata, K.,
Itoh, M., Konno, H., Okazaki, Y., Muramatsu, M. and Hayashizaki, Y.
Normalization and subtraction of cap-trapper-selected cDNAs to
prepare full-length cDNA libraries for rapid discovery of new genes
chome research. 10 (10), 1617-1630 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Adachi, J., Alzawa, K., Akahira, S., Akimura, T., Aono, H., Arai, A., Arakawa, T., Carninci, P., Fukuda, S., Fukunishi, Y., Furuno, M., Hanadoki, T., Haracka, T., Haracka, T., Haracka, T., Haracka, T., Haracka, T., Haracka, T., Hori, M., Tzawa, M., Kato, H., Kawai, J., Kojima, Y., Konno, H., Kouda, M., Koya, S., Kurihara, C., Matsuyama, T., Myazaki, A., Mishi, K., Nomura, K., Numazaki, R., Ohno, M., Okazaki, Y., Okido, T., Owa, C., Saito, H., Saito, R., Sakai, K., Sano, H., Sasaki, D., Shibata, K., Shibata, Y., Shinagawa, A., Shiraki, T., Tagami, M., Tagawa, A., Takahashi, F., Yoshida, K., Yoshino, M., Muramatsu, M., Tagawa, A., Takahashi, F., Yoshida, K., Yoshino, M., Muramatsu, M., and Hayashizaki, Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Shibata, K., Itob, M., Alzawa, K., Nagaoka, S., Sasaki, N., Carninci, P., Shibata, K., Itob, M., Alzawa, K., Nistiana, T., Tsahiro, H., Itob, M., Sumi, N., Ishi, Y., Nakamura, S., Hazama, M., Nishino, T., Harada, A., Samanoto, R., Matsumoto, H., Sakaguchi, S., Ikogami, T., Kashiwagi, K., Fujiwake, S., Inoue, K., Togawa, Y., Isawa, M., Ohara, E., Watshiki, M., Yoneda, Y., Ishikawa, T., Ozawa, K., Tanaka, T., Matsuura, S., Kawai, J., Riken integrated sequence analysis (RISA) system-384 format sequencing pipeline with 384 multicapillary sequencer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Physical and Chemical Research (RIKEN), Laboratory for Genome Exploration Research Group, RIKEN Gemomic Sciences Center (GSC), RIKEN Yokohama Institute; 1-7-22 Suehiro-cho, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan (E-mail:genome-reségsc.riken.go.jp, JRL:http://genome.gsc.riken.go.jp/, Tel:81-45-503-9222,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Cranlata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4 (bases 1 to 3015)
The RIKEN Genome Exploration Research Group Phase II Team and the
FANTOM Consortium.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              for
                           cDNA, RIKEN full-length enriched
    05-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Functional annotation of a full-length mouse cDNA collection Nature 409, 685-690 (2001) (bases 1 to 3015)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Submitted (10-JUL-2000) Yoshihide Hayashizaki, The Institute
                                                                                                                                   mRNA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  lease visit our web site (http://genome.gsc.riken.go.jp/)
                                                                                                     CAP trapper.
Mus musculus (strain:C57BL/6J) adult male lung cDNA to relone_llb:rKEN full-length enriched mouse cDNA library clone:1200004B16.
AK004591 3015 bp mRNA HTC
Mus musculus adult male lung cDNA, RIKEN full-le
library, clone:1200004816, full insert sequence.
AK004591. GI:12835863
                                                                                                                                                                                                                                                      1 (bases 1 to 3015)
Carninci, P. and Hayashizaki,Y.
High-efficiency full-length CDNA cloning
Methods in enzymology. 303, 19-44 (1999)
                                                                                                                                                                                           Mus musculus
LOCUS
                                                                                                                                                                                         ORGANISM
                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
TITLE
JOURNAL
MEDLINE
PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE
PUBMED
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE
JOURNAL
REFERENCE
AUTHORS
                                                             ACCESSION
                                                                                 VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                         AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                   REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PUBMED
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL
```

TITLE

COMMENT

TITLE

```
FLLISACWVISLILGGLPIMGWNCISSLSSCSTVLPLYHKHYILFCTTVFTLLLLSIV
ILYCRIYSLVRTRSRRLTFRKNISKASRSSEKSLALLKTVIIVLSVFIACWAPLPILL
LLDVGCKAKTCDILYKAEYFLVLAVLNSGTNPIIYTLTNKEWRRAFIRIVSCCKCPNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IKLTSVVFILICCFIILENIFVLLTIWKTKKFHRPMYYFIGNLALSDLLAGVAYTANL
LLSGATTYKLTPAQWFLREGSMFVALSASVFSLLAIAIERYITMLKMKLHNGSNSSRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /translation="MVSTSIPEVKALRSSVSDYGNYDIIVRHYNYTGKLNIGAEKDHG
full-length enriched mouse cDNA library'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CIGCTSATCAGCGCCTGCTGCTTCTCCCTCATCTGGGGGCCTGCCCATCATGGGC 1053
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         577 GATATCATAGTCCGGCATTACAACTACACAGGAAGTTGAACATCG---GGGCGGAGAAG 633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ggtgccggcctgcggcgacgccgtggtgtgtgcctggcggtgtgcgccttcatcgtgcta 156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        277 atcctactgtcggggccgctcacgctgaaactgtcccccgcgctctggttcgcacgggag 336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        634 GACCAIGGCATTAAACTGACTTCAGTGGTGTTCATTCTCATCTGCTGCTTCATCATCCIA 693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ctgotcotgggcagoctcacgttgtcggatctgctggcaggcgccgcctacgccgccaac 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 814 CIGCIGITGICIGGGCCACCACTIACAAGCICACAGCCIGCCAGIGGIIICTGCGGGAA 873
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ggaggogicticgiggcactcactgogiccgigctgagccicctggccatcgcgctggag 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cgcagcctcaccatggcgcagggggcccgcgcccgtctccagtcgggggggcgcacgctg 456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gaggicatcgtcctgcattacaactacaccggcaagctccgcggtgcgcgctaccagccg 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gagastctagccgtgttgttggtgctcggacgccaccgggcttccacgctcccatgttc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      934 CGCTACATCACCATGCTGAAGATGAAACTACACAACGGGAGCAACAGCTCGCGCTCCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gcgatagcagccggcctggggcgtgtcgctgctcctcgggctcctgccagcgctgggc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DSAGKFKRPIIPGMEFSRSKSDNSSHPQKDDGDNPETIMSSGNVNSSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 271.2; DB 12; Length 3015;
Pred. No. 8.2e-39;
0; Mismatches 393; Indels 15;
                                                                                                                                                                                                                                                                                                          /db_xref="taxon:10090"
/db_xref="MGD:MGI:1096355"
/db_xref="MGD:MGI:1904334"
/clone="1200004816"
```

ID : COAG235DH01LP1~end : T7" t 5 others

249

Gaps

Length 973; Indels 309

429

582 549 522

à

```
130 ctggcggtgtgcgccttcatcgtgctagagaatctagccgtgttgttggtgctcggacgc 189
                                                                                                                                                                                                                                                                                                                                                                                                                                          821 CTAGCTGGGATTACATATATGGCCAACATCATCATGTCTGGACCTAATACCTTGAAACTG 762
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 310 coccogogototoggttogcacgggagggaggcgtottogtggcactcactgcgtccgtg 369
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            880 AACAAGAAGTICCACITGCCCATG-TATTACCIGITGGAAACCITACITIGICIGACCIG 822
                                                                                                                                                                                                                                                                                      940 cridgigiciecciectearierecrisagaarecresestririsaaceartresage 881
                                                                                                                                                                                                                                                                                                                                                                                                      250 otggcaggcgcctacgccgccaacatcctactgtcggggccgctcacgctgaaactg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          370 ctgagcctcctggccatcgcgtggagcgcagctcaccatggcgcgcaggggccgcg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            641 CATGGAGCAAAGCGCGGACGGTATSTGGCGCTGATCSGTGCGAGCTGGGCCCTAGCAGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         581 TTTTGGGGGTTCTTCCAATTTTGGGGTGGAACTGCATCCACAGCCTAGACCAGGCCTCG
                                                                                                                                                                                                                                                                                                                           190 caccegegettecaegeteceatgtteetgetectgggcageteteggttgteggatetg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 701 ATTAGCCTGCTGGCCATTGCAATTGAACGACATGTCACTATGGTGACCATGAGGCCGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ctcctcgggctcctgccagcgctgggattgcctgggtcgcctggacgcttgctcc
/organism="Tetraodon nigroviridis"
/db_xref="taxon:99883"
/clone="235802"
/clone_1lb="6"
/note="Genoscope sequence ID : COA
                                                                                                                                                                          21.1%; Score 252; DB 13;
1larity 58.0%; Pred. No. 1.8e-35;
Conservative 3; Mismatches 338;
                                                                                                                                                                                             Similarity
                                                                                                 256
                                                                                                                                                                          Query Match
Best Local Simi
Matches 477;
                                                                                             BASE COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     610
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 190
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            164
                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                      음
                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Submitted (12-APR-2000) to the EMBL/GenBank/DDBJ databases
This sequence is a single read and was generated as part of a large
scale clone-end sequencing project of the Tetraodon nigroviridis
genome. For more information, please take a look at
http://www.genoscope.cns.fr/Tetraodon.
Location/Qualifiers
1. 973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GSS; genome survey sequence.
Tetracdon nigroviridis.
Tetracdon nigroviridis.
Tetracdon nigroviridis
Tetracdon nigroviridis
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostcmi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
Acanthomorpha; Acanthopterygii; Percomorpha; Tetracdontiformes;
Tetracdontidae; Tetracdon.
1 (bases 1 to 973)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human gene number estimate provided by genome wide analysis using Tetraodon nigroviridis DNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Roest-Crollius, H., Jaillon, O., Dasilva, C., Bouneau, L., Fisher, C., Bernot, A., Fizames, C., Wincker, P., Brottier, P., Quetler, F., Saurin, W. and Weissenbach, J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Charaterization and repeat analysis of the compact genome of the freshwater pufferfish Tetraodon nigroviridis
Unpublished
                                                                                                               CNSO2502 973 bp DNA GSS 12-MAY-2000 retracdon nigroviridis genome survey sequence T7 end of clone 235P02 of library G from Tetracdon nigroviridis, genomic survey
                                                                                                                                                                                                                                                                      1342 TIAGAIGIGGCIGCAAGGCGAAGACCIGIGACAICCIGIACAAAGCAGAGIACIICCIG 1401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   576
                                                                                             636
                                                                                                                                                                                                                                                 756
                                                                                                                                                                                                                                                                                                                           816
                                                                                                                                                                                                                                                                                                                                                                                                      876
                                        ctcagcgtggtgctcctggcctttgtggcatgttggggccccctcttcctgctgctgttg
                                                                                                                                                                                                                                                                                                                                                                                                  ctcgacgtggcgtgcccggcgcacctgtcctgtactcctgcaggccgatcccttcctg
                tggaattgcctgggtcgcctggacgcttgctccactgtcttgccgctctacgccaaggcc
                                                                                                                                                                    9c9cgcatctactgccaggtacgcgccaacgcgcgcggcctgccggcacggcccgggact
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ggactggccatggccaactcacttctgaaccccatcatctacacgctcaccaaccgcgac
                                                                                         tacgigototicigogigotogocticgigggateciggecgciateigggactetae
                                                                                                                                                                                                       1174 TGCAGGATCTACTCCTTGGTCAGGACTCGAAGCCGCCGCCTGACCTTCCGCAA-----
                                                                                                                                                                                                                                               1462 Arececceccercarcegarearareriganacecceaace 1511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  937 ctgcgccacgcgctcctgcgcctggtctgctgcggacgccactcctgcgg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AL181451.1 GI:7819525
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (bases 1 to 973)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (bases 1 to 973)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CNS02502
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCESSION
VERSION
KEYWORDS
SOURCE .
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT 7
CNS02502/c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LOCUS
              517
                                                                                                                                                                                                                                                                                  1227
                                                                                       577
                                                                                                                                                                  637
                                                                                                                                                                                                                                             697
                                                                                                                                                                                                                                                                                                                       757
                                                                                                                                                                                                                                                                                                                                                                                                817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
                                          음
              ð
                                                                                                                 셤
                                                                                                                                                                6 6
                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                          용
                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                     음
                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
```

ò

ç

```
699
                                                                                                                                                           729
                                                                                                                                                                                                   345
                                                                                                                                                                                                                                         789
                                                                                                                                                                                                                                                                             285
                                                                                                                                                                                                                                                                                                                       849
                                                                                                                                                                                                                                                                                                                                                             225
                                                                                                                   461 GIGCTICTIGCAATCGIGGICCTITACGICAGAGIGITICGCATCGICCGCATCAACACC 402
                                                                                                                                                                                                                                                                                                                                                                                                   909
                                                                                                                                                                                                                                                                                                                                                                                                                                           165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-MAY-2001
                                                                                                                                                       670 cygcycctyccygcacygcccygyactycygygaccacctcyacccygycycytcycaag
                                                                                                                                                                                                                                                                                                                                                         284 TGGTTGCCCCTCTTCCTCCTCCTCCTGGATTTTTTCTGCCCCACTCGCACTTACTGG
                                                                                                                                                                                                                                                                                                                                                                                                                        224 CTGCTCTACAAGGCTGATTACTTCTTGGGAGTCGCTATGGTCWACTCGCTCCTGAACCCC
                                                                             atcctggccgctatctgtgcactctacgcgcgcatctactgccaggtacgcgaccaacgcg
                                                                                                                                                                                             401 AAGCGCCAGCGG---CTGGGCCTGTCGGGCAACCTCAGGAAGGGCCTAGCGCGAAAGTCA
                                                                                                                                                                                                                                     cggggttggtgggtggggacggtcagggtggtgtctgggctttgtgggcatgt
                                                                                                                                                                                                                                                                                                                   tagggccccctcttcctgctgctgttgctcgacgtggcgtgcccggcgcacctgtcct
                                                                                                                                                                                                                                                                             344 CAGAAATACATCGCCCTGCTCAAGACGGTCACGATTGTTCTGGGAGTCTTCATCGCCTGT
                                                                                                                                                                                                                                                                                                                                                                                                 gtactectgcaggecgatecettectgggaetggecatggecaaeteaettetgaaeeee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            910 atcatctacacgctcaccaaccgcgacctgcgccacgcgctc 951
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BG682434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT
BG682434
LOCUS
```

```
200K21 of library G from Tetraodon nigroviridis, genomic survey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 18.7%;
Best Local Similarity 57.1%;
Matches 481; Conservative
                                                                                                                                                                                                         Charaterization and
                                                                                                                                                                                                                                                 to 960)
                                                                                                                                                                                                                                                                                                                                             (bases 1 to 960)
                                                                                                                                                                                                                                                                                                                                                                      Submission
                                                                                    ORGANISM
                                ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                     REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BASE COUNT
                                                                                                                                                                                                                                                REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               220
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            160
                                                                                                                                                                                                                                                                                                                               JOURNAL
                                                                                                                                                                                                                                   JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           400
                                                                                                                                                                                                         TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURES
                                                                                                                                                                                                                                                                                                      TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4
     'n
                                                                                                                                                                     Contact: Robert Strausberg, Ph.D.
Email: Gapbs-rémail.nih.gov
Email: Gapbs-rémail.nih.gov
Elissue Procurement: James Cleaver, M.D.
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Preparation: Life Technologies, Inc.
CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)
DNA Sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:
http://mage.lln.gov
Plate: LLAMIO616 row: 1 column: 19
High quality sequence stop: 317.
                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryotti, Metazoa: Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia: Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 1126)
NIH "MGC http://mgc.nci.nih.gov/.
  602630178F1 NCI_CGAP_Skn4 Homo sapiens cDNA clone IMAGE:4754850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             59 AridaAGTCGGGCTGCTGCGGCCCGGCGGTGAGCGAGGTCATCGTCCTGCATTACAAC 118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1 atggagtcggggtgtgcggccggccggtgagcgaggtcatcgtcctgcattacaac 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LOCUS CNSO1WAS 960 bp DNA GSS 12-MAY-2000 DEFINITION Tetraodon nigroviridis genome survey sequence 77 end of clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 11; Length 1126;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   8; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 242.2; DB
Pred. No. 1e-33;
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                   /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="IMAGE:4754850"
/clone_lib="NCI_CGAP_Skn4"
              mRNA sequence.
BG682434
BG682434.1 GI:13913831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20.28;
                                                                                                                                                            Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Local Similarity 96.0
Matches 291, Conservative
                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            297 cac 299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    359 TAC 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
DEFINITION
                                                                           ORGANISM
                                                                                                                 REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNT
                                                                                                                                            TITLE
JOURNAL
                          ACCESSION
                                        VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                           FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CNS01WAS
                                                                                                                                                                       COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BASE CO
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
```

```
Submitted (12-APR-2000) to the EMBL/GenBank/DDBJ databases
This sequence is a single read and was generated as part of a large
scale clone-end sequencing project of the Tetraodon nigroviridis
genome. For more information, please take a look at
http://www.genoscope.cns.fr/Tetraodon.
ALI70173.1 GI:7808230
GES; genome survey sequence.
Fetraodon nigroviridis.
Tetraodon ingroviridis.
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei; Acanthomorpha; Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Roest-Crollius, H., Jaillon, O., Dasilva, C., Bouneau, L., Fisher, C., Bernot, A., Fizames, C., Wincker, P., Brottier, P., Quetier, F., Saurin, W. and Weissenbach, J.
Human gene number estimate provided by genome wide analysis using Terraodon nigroviridis DNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ID : COAG200AF11LP1-end : T7" t 3 others
                                                                                                                                                                                                               Tetraodontidae; Tetraodon.

(bases 1 to 960)

Roest-Crollius.H., Jaillon,O., Dasilva,C., Fizames,C., Fisher, Bouneau,L., Billault,A., Quetier,F., Saurin,W., Bernot,A. and Welssenbach,J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   100 googgeetgogogoogacgeogtggtgtgcctggcggtgtgogccttcatcgtgctagag 159
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            aatctagccgtgttggtgctcggacgccacccgcgcttccacgctcccatgttcctg 219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ggogtettegtggcacteactgcgtccgtgctgagcetectggccatcgcgctggagcgc 399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  244 AATGCTGTTGTTGTAGCCATTTGGAGGAACAAGAAGTTCCACTTGCCCATGTATTAC 303
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    agceteaccatagcacacagagagcecgcgcecgtetecagtegagagcgcacgetageg 459
                                                                                                                                                                                                                                                                                                                                                                        Charaterization and repeat analysis of the compact genome of reshwater pufferfish Tetraodon nigroviridis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               40 gtcatcgtcctgcattacaactacaccggcaagctccgcggtgcgcgctaccagccgggt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  424 GGAGTCTTCATCACTCTAGCCGCCTCTGTAATTAGCCTGCTGGCCATTGCAATTGAACGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ctcctyggcagcctcacgttgtcggatctgctggcaggcgccgcctacgccaacatc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ; Score 223.6; DB 13; Length 960; Pred. No. 2e-30; 3; Mismatches 347; Indels 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Tetraodon nigroviridis"
/db_xref="taxon:99883"
/clone="200K21"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /clone_lib='G"
/clone_lib='G"
/note="Genoscope sequence
233 g 261
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
```

4

```
BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                  175
                                                                                                                                                                                                                                                                                                                                                                                                                                        347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BG744043
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT
                                                                                                                                                                                ö
                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                  ä
                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.

El (bases 1 to 694)

National Losgitutes of Health, Mammalian Gene Collection (MGC)

(Unpublished (1999)

Contact: Robert Strausberg, Ph.D.

Email: cgapbs-rémail.nih.gov

Tissue Procurement: Jeffrey E. Green, M.D.

CDNA Library Preparation: Life Technologies, Inc.

CDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /clone_llb="NCI_CGAP_Lig"
/lab_host="DH10B (Tl phage-resistant)"
/note="Organ: liver; Vector: pCMV-SPORT6; Site_l: NotI; Site_2: SalI; Cloned unidirectionally. Primer: Oligo dT.
                                                                                                                                                                                                                                                                                        CDNA clone IMAGE:5133791
519
                                                                                      520 mattgoctgggtogcctggacgcttgctccactgtcttgccgctctacgccaaggcctac 579
                                                                                                                  663
                                                                                                                                          639
                                                                                                                                                        669
                                                                                                                                                                                                                   780
                                                                                                                                                                                                                                        840
                                                                                                                                                                                                                                                                                                                                                            580 gigototicigogigotocitogigggoalcotggoogotalotgigoactotaogog
                                                                                                    640 egeatetactgecaggtacgegecaaegegegegectgeeggeaeggeeeggaetgeg
                                                                                                                                                                                                             724 AGAGTETTTCGCATCGCATCAACACCAAGCGC---CASGGCCTGTGCCTGTCGGC
                                    460 atggcagccgcgggctgggggggtgctgctcctggctactgccagcgctgg
                                                                                                                                                                                                                                                                 781 AACCICAAGAAGGGCCIAGCGCGAAAGICACAGAAATACAICGCCCIGCICAAGACGGIC
                                                                                                                                                                                                                                                                                                                                           820 gacgiggcgtgcccggcgcgcaccigtccigtaciccigcaggccgaiccitcciggga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BI332488 694 bp mRNA
602980893F1 NCI_CGAP_L19 Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 http://image.llnl.gov
Plate: LLAMil328 row: 1 column: 24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /organism-"Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            High quality sequence stop: 691.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /db_xref="taxon:10090"
/clone="IMAGE:5133791"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /strain="FVB/N"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        BI332488
BI332488.1 GI:15017145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              house mouse.
                                                                                                                                                                                                                                                                                                                                                                                            ct 881
                                                                                                                                                                                                                                                                                                                                                                                                                      959 GT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                            2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                            880
                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 1(
BI332488
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEATURES
                                     à
                                                         a
                                                                                   ò
                                                                                                             g
                                                                                                                                   ò
                                                                                                                                                             a
                                                                                                                                                                                                           8
                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                  õ
                                                                                                                                                                                                                                                                                                              윱
                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                  셤
```

```
Influence of the control of the cont
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 209 ArgGAGCCCGGGCTGCTGCGGGGGGGGGGGAATGAGAGGGATATGTGTGTCTTACAAT 268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        449 ACTITIGICGGAACTGGTCGCCCGGGGCGGGCTAAGGCCACCAAATTCTATATGGTCGGG 508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   292 cigctcacgctgaaac----tgtccccgcgctctggttcgcacgggagggggggcgtct 346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         tégtggeacteactgegteegtgetgageeteetggeeategegetggagegeactea 406
                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BG744043 793 bp mRNA EST 15-MAY-2001 602722823F1 NIH_MGC_106 Homo sapiens cDNA clone IMAGE:4849349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 atggagtcgggctgctgcggccggcggtgagcgaggtcatcgtcctgcattacaa-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        569 regrecercececercereacereacererresecarrecrarasaceceaecra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              tiggtgctcggacgccaccggcgctccacgctcccatgttcctgctcctgggcagcctc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            235 acgitgicggatcigcigge---aggcgccgcctacgccgccacaicctactgicggg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          509 GCGTCTCAGCGCTGCGCCGTGCCCTTGGGTTGGCGCGTGAGGGGGGCGTCT
Average insert size 1.9 kb. Constructed by Life Technologies. Note: this is a NCI_CGAP Library."
                                                                                                                                                                                                                                                                                                                                                                                                  15;
                                                                                                                                                                                                                                                                                                           Length 694;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; E
Mammalla; Eutheria; Primates; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                      Score 216.6; DB 11; Length
Pred. No. 3.3e-29;
0; Mismatches 124; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BG744043.1 GI:14054696
                                                                                                                                                                                                                                                                                             Ouery Match
Best Local Similarity 71.3%;
Matches 346; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        mRNA sequence.
BG744043
                                                                                                                        Ø
                                                                                                               97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       466 gccgc 470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GTGGC 693
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               human.
```

a

prime

'n

us-09-842-316-1.rst

```
/note="Vector: PCMVSPORT 6; 1st strand cDNA was primed with a NotI-oligo(dT) primer. Five prime end enriched, double-stranded cDNA was digested with Not I and cloned into the Not I and Eco RV sites of the pCMVSPORT 6 vector. Library was constructed by Life Technologies. Contact: Feng Liang Life Technologies, a division of Invitrogen 9800 Medical Center Drive Rockville, Maryland 20850, USA Fax: (1) 301 610 8371 Email: filang@ilfetech.com URL: 311 c 299 g 172 t lothers
                                                                                                                                                                             Chordata; Craniata; Vertebrata; Buteleostomi; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gcggtgtgcgccttcatcgtgctagagaatctagccgtgttgttggtgctcggacgccac 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AL560216 886 bp mRNA EST 16-FEB-2001
AL560216 LTI_FL011_BC1 Homo sapiens cDNA clone CS0DG002KK22 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          agcetectggccategegetggagegeageetcaccatggegegeagggggecegegee 432
                                                                                                                                                                                                                                                                                  Genoscope - Centre National de Sequencage
BP 191 91006 EVRY cedex - France
Emàll: seqref@genoscope.cns.fr, Web : www.genoscope.cns.fr.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              73 etccgcggtgcgctaccagccgggtgccggcctgcgccgacgccgtggtgtgtgcctg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     164 GCCGCCAGCTGCTGCTGCTGCTGCAGAACTTGCTGGTGCTGGCGGCCCATCACCAGCCAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    193 ccgcgcttccacgctcccatgttcctgctcctgggcagcctcacgttgtcggatctgctg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gcaggcgcctacgccgccaacatcctactgtcggggccgctcacgctgaaactgtcc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              284 ACGGGGGGGCGTACCTGGCCAACGTGCTGTGGGGGGCCCGCACCTTCCGTCTGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   224 ATGCGGTCGCGACGTCGTCTACTATTGCCTGGTGAACATCACGCTGAGTGACCTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 59.0%; Pred. No. 3.4e-29;
Matches 391; Conservative 0; Mismatches 269; Indels 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                          /tissue_type="B cells from Burkitt lymphoma" /lab_host="DH10B"
                                                                                                                                                                                                          1 (bases 1 to 886)
Li.W.B., Gruber.C., Jessee,J. and Polayes,D.
Full-length cDNA llbraries and normalization
Onpublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                             /clone_lib="LTI_FL011_BC1"
                                                                                                                                                                                                                                                                                                                                                                 /organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="CSODG002KR22"
                                                                                                                 AL560216.1 GI:12906465
                                                                                                                                                                                                                                                                                                                                                                                                                             /sex="male"
                                                                                                                                                             Homo sapiens
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                       Contact: Genoscope
                                                                                  mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              103
                                                                                                                                                huinan.
                                                  LOCUS
                                                                                                                                                                                                                                                                                                                                                   source
                                                                                            ACCESSION
VERSION
KEYWORDS
                                                                                                                                                             ORGANISM
                                                                                                                                                                                                       REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           133
                     RESULT 1
AL560216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          373
                                                                                                                                                                                                                                                                                                                                 FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                      1;
                                                                                                                                                                                                                                                                                                                                                                                                                69 caderidacedecedecedecedecederearrearetacacaaceaeredeced 128
                                                                                                                                                                                                                                                                                                                                                                                                                                              73 ctccgcggtgcgcgctaccagccgggtgccggcctgcgcgccgacgccgtggtgtgcctg 132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gcggtgtgcgccttcatcgtgctagagatctagccgtgttgttggtgctcggacgccac 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cogogottocacgotoccatgttoctgotcotgggcagcotcacgttgtcggatctgctg 252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                253 gcaggegecgectaegecgecaacatectaetgteggggeegeteaegetgaaactgtee 312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              309 Acedecedeceracereceaacerecrecrerecesesececeaecrecreseses 368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 249 Argcggrcgcacgcrcggrcracrarrgccrcgrgaacarcacgcrgagrgacrgcrc 308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   373 agcetectggecategegetggagegeageeteaceatggegegeaggggeeegegeee 432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       433 ---gictccagicgggggggcgcacgcigggcgaiggcagccgggggccigggggggcgiggcig 489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               490 ctcctcgggctcctgccagcgctggattgcatgcctgggtcgcctggacgcttgctcc 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      669 GICCIGGCCACCATCAGGCCTCTATGGGCCATCTTCCGCCTGGTGCAGGCCAGCGGG 728
                                                                                                                                                                                                                                                                                                                                                                                     550 actgicitgccgcictacgccaaggcciacgtgcicticigcgtgcicgccticgtgggc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           610 atcctggccgctatctgtgcactctacgcgcgcatctactgccaggtacgcgccaacgcg
                                                                                                                                                                                                                                                                                                                                                              .,
Έ
                                                                                                                                                                                                                                                                                                                              DB 11; Length 793;
                                                                                                                                                                                                                                                                                                                          Score 216.6; DB 11; Length
Pred. No. 3.3e-29;
0; Mismatches 269; Indels
                                             /organism="Homo sapiens"
                                                                                          /clone_l1b-"NIH_MGC_106"
High quality sequence stop: 789
                                                          /db_xref="taxon:9606"
/clone="IMAGE:4849349"
   Location/Qualifiers 1. .793
                                                                                                                                                                                                                                                                                                                            18.1%;
59.0%;
                                                                                                                                                                                                                                                                                                                                                    Matches 391; Conservative
                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                  ದ
                                                                                                                                                                                                                                                              95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   670 cgg 672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAG 731
                                                                                                                                                                                                                                                                                                                          Query Match
Best Local
                                                                                                                                                                                                                                                              COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  729
            FEATURES
                                                                                                                                                                                                                                                             BASE CC
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           윱
                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             윤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    . <u>අ</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     원
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
```

132

Gaps

ä

223 252 283 312 343 372 73 ctccgcggtgcgcgctaccagccggtgccggcctgcgcgccgacgccgtggtgtgcctg 132

```
g
                                                      ò
                                                                          g
                                                                                                   ò
                                                                                                                            g
                                                                                                                                                       ö
                                                                                                                                                                             g
                                                                                                                                                                                                       ò
                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                              ద
                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                   р
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ă
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    염
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               . යු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /ssue_type="B cells from Burkitt lymphoma"
/issue_type="B cells from Burkitt lymphoma"
/note="Vector: pcMvSPORT 6; Site_l: NotI; lst strand cDNA
was primed with a NotI-oilgo(dT) primer. Five prime end
enriched, double-stranded cDNA was digested with Not I and
cloned into the Not I and Eco RV sites of the pcMvSPORT 6
vector. Library was normalized. Library was constructed by
Life Technologies. Contact: Feng Liang Life Technologies,
a division of Invitrogen 9800 Medical Center Drive
Rockville, Maryland 20850, USA Fax: (1) 301 610 8371
Email: filang@iifetech.com URL:
http://fullength.invitrogen.com"

05 a 327 c 299 g 176 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4
                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
Eukaryota; Metazoa; Chordata; Cranlata; Vertebrata; Euteleostomi;
Mammalla; Eutherla; Primates; Catarrhini; Hominidae; Homo.
                             489
                                                                             549
                                                                                                    583
  AGCCTGCTCTTCACTGCAGGGGAGCGCTTTGCCACCATGGTGCGGCCGGTGGCCGAGAGC 463
                                                     523
                                                                                                                              609
                                                                                                                                                    643
                                                                                                                                                                        907 bp mRNA EST 16-FEB-2001 LTI_NFL010_BC2 Homo sapiens cDNA clone CSOBL003YC21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           13 ctgctgcggccggcggcggtgagcgaggtcatcgtcctgcattacaactacaccggcaag 72
                         ---gtctccagtcgggggggcgctggcgatggcagccggggcctgggggggtgtcgctg
                                              ctcctcgggctcctgccagcgctgggctggaattgcctgggtcgcctggacgcttgctcc
                                                                                       actgicitgccgcictacgccaaggcctacgigcicticigcgigcicgccitcgigggc
                                                                                                                                       41;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 907;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 215.2; DB 10; Length
Pred. No. 6.1e-29;
0; Mismatches 353; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                           1 (bases 1 to 907)
L1,W. B., Gruber,C., Jessee,J. and Polayes,D.
Full-length CDNA llbraries and normalization
Unpublished (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1.907
/organism="Homo sapiens"
/db_xref="taxon:9606"
/clone="CSODL003xC21"
/sex="male"
                                                                                                                                                                                                                                                                                                              AL560608 LTI_NFL010_BC2 H
AL566608 LTI_NFL010_BC2 H
Prime, mRNA Sequence.
AL560608 I GI:12907235
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 56.3%;
Matches 508; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        105
                                                                                                                                                                                                                            cgg 672
                                                                                                                                                                                                                                                  704 CAG 706
                                                                                                                                                                                                                                                                                                                                                                                              nemnt
                                                                                                                                                                                                                                                                                                                                                                 VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                           DEFINITION
                         433
                                                                                                                                                                                                                                                                                         13
 404
                                                                          490
                                                                                                                          550
                                                                                                                                                   584
                                                                                                                                                                                                                            670
                                                                                                                                                                                                                                                                                                                                                                                                                                          REFERENCE
AUTHORS
TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                        RESULT 1:
AL560608
                                                                                                                                                                                                                                                                                                                                                     ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
8
                                          ୍ଷ
                         ò
                                                                       ò
                                                                                               셤
                                                                                                                    à
                                                                                                                                               g
                                                                                                                                                                         ò
                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                 용
                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
```

g

```
Norway rat.
Rattus norvegicus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BF281109 745 bp mRNA EST 28-NOV-2000 EST45700 Rat Gene Index, normalized rat, Rattus norvegicus cDNA Rattus norvegicus cDNA clone RGIAA02, mRNA sequence. BF281109 GI:11212179
                                                                                                                                                                                                                                                                                                                                                 89 crescescescescesces es de consecue de c
                                                                                                                                                207
                                                                                                                                                                                                                       252
                                                                                                                                                                                                                                                                                          267
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        567
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    699
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   670 cggcgcctgccggcacggcccgggactgcggggaccacctcgacccgggcgcgccaag 729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ccgcgctcgctggccttgctgcgcacgctcagcgtggtgctcctggcctttgtgggcatgt 789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gtactcctgcaggcc---gatcccttcctgggactggccatggccaactcacttctgaac 906
                                                                                                                   373 agectectggecategegetggagegeagecteaceatggegegeagggggeeegegee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                193 cggggttccacgctcccatgttcctggtcctgggcagctcacgttgtcggatctgctg
                                                                                                                                                                                                                                                                              388 AGCCTGCTCTTCACTGCAGGGGAGCGCTTTGCCACCATGGTGCGGCCGGTGGCCGAGAGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ---gretecagtegggggggaegetggegatggeageegeggeetggggegtgtegetg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ctectegggetectgecagegetgggetggaattgectgggtegectggaegettgetee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      geggtgtgcgcctcatcgtgctagagaatctagccgtgttgttgtggtgctcggacgccac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTGCTGGGGATGCTGCCTTTGCTGGGCTGGAACTGCCTGTGCGCCTTTGACCGCTGCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         610 atcctggccgctatctgtgcactctacgcgcgcatctactgccaggtacgcgacgcg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     688 CAGAAGGCCCACCCAGCGCCCGCCGCAAGGCCCGCC------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ||
CC 895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cc 908
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                          133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             508
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            730
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BF281109
```

```
Norway rat.
Rattus norvegicus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matches 322; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       128
                                                                                                                                                                                                                                                                                                                                                  Rattus.
                                                                                           668 cgcg 671
                                                                                                                       718 GCCG 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Best Local
                                                                                                                                                                                                                                                        VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         source
                                                                                                                                                                                                            DEFINITION
                                                                                                                                                                   RESULT 15
BF281107
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                      TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                             REFERENCE
AUTHORS
                                                                                                                                                                                                                                          ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FEATURES
                               ö
                                                          a
                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
E 1 (bases 1 to 745)

IS Malek, R.L., Cho,J., Lee,Y., Karamycheva,S., Parvizi,B., Pertea,G., Sultana,R., Tasi,J., White,J., Quackenbush,J. and Lee,N.H.

Generation of ESTs from Normalized Rat Embryo, Bento Soares
Unpublished (2000)

Other_ESTs: EST445699

Contact: Lee, N.H

The Institute for Genomic Research
9712, Medical Center Drive, Rockville, MD 20850, USA
Tel: (301)-838-3259
Fax: (301)-838-0208
Email: nhlee@tigr.org
This clone is available through the ATCC, contact the ATCC
tel#703-365-2700 for further information.
                                                                                                                                                                                                                                                                                                                                                       /note="Vector: pr3T7Pac; Site_1: EcoR1; Site_2: Not1; Combination of ROV, RBR, RKI, RLI, RPL, RLU, REM, RMU, RSP, RHE, RPC, RPN"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gcaagetecgeggtgegetaceageegggtgeeggeetgegegeeggegtggtgt 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       128 gcctggcggtgtgcgccttcatcgtgctagagaatctagccgtgttgttggtgctcggac 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gccacccgcgcttccacgctcccatgttcctgctcctgggcagcctcacgttgtcggatc 247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             58 CGCCGCGTCTCCAGCCGGTGCCGGGGAACGAGACCCTGCGGGAGCATTACCAGTACGTGG 117
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGAAGTIGGCGGCAGCCTGAAGGAGCCTCCGAGGCAAGCACGCTCACCACCGTGCTCT 177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ccactgtcttgccgctctacgccaaggcctacgtgctcttctgcgtgctcgccttcgtgg 607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    168 tgctgagcctcctggccatcgcgctggagcgcagcctcaccatggcgcaggagggcccg 427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                478 ACGACGCCAACAAGAGGCACCGCGTCTTCCTCCTGATCGGGATGTGCTGGCTCATTGCCT 537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     tgctcctcgggctcctgccagcgctgggattgcctgggtcgcctggacgcttgct 547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8 cggggctgctgcggccggcggcggtgagcggggcggtcatcgtcctgcattacaactacaccg 67
                                                                                                                                                                                                                                                                                                   normalized rat, Rattus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ouery Match 17.4%; Score 208; DB 11; Length 745; Best Local Similarity 57.1%; Pred. No. 1.1e-27; Matches 379; Conservative 0; Mismatches 285; Indels
                                                                                                                                                                                                                                                /organism="Rattus norvegicus"
/db.xref="taxon:10116"
/clone="RolfAAA02"
/clone_Inb="Rat Gene Index, nc
                                                                                                                                                                                                                                                                                                                                                                                                    168 t
                                                                                                                                                                                                                                                                                                                            /tissue_type="mixed tissue"
/lab_host="DH5-alpha"
                                                                                                                                                                                                                                                                                                                                                                                                 192 9.
                                                   TITLE
JOURNAL
COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                 COUNT
                         AUTHORS
           REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           118
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               548
                                                                                                                                                                                                                                                                                                                                                                                                BASE CO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
```

```
l (bases 1 to 695)
Malek, R.L., Cho, J., Lee, Y., Karamycheva, S., Parvizi, B., Pertea, G.,
Sultana, R., Tsal, J., White, J., Quackenbush, J. and Lee, N. H.
Generation of ESTs from Normalized Rat Embryo, Bento Soares
Unpublished (2000)
Other_ESTs: EST445696 EST445697 EST345368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                       BF281107 695 bp mRNA EST 28-NOY-2000
EST445698 Rat Gene Index, normalized rat, Rattus norvegicus cDNA
Rattus norvegicus cDNA clone RGIAA01, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /tissue_type="mixed tissue"
/lab_host='DH5-alpha"
/note='Vector: pT3TPPac; Site_1: EcoR1; Site_2: Not1;
Combination of ROV, RBR, RKI, RLI, RPL, RLU, REM, RWG,
                                                                                         598 CTACCATCCTGCCCCTCTACTCCAAGAAGTACATTGCCTTCTGCATCAGCATCTACAGG 657
                                                       608 gcatcctggccgctatctgtgcactctacgcgcgcatctactgccaggtacgcgcaacg 667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            137 tgtgcyccttcatcgtgctagagaatctagccgtgttgttggtgctcggacgccaccgc 196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      155 TATGCTGCCATCGTGGTGGAGAACCTTCTGGTGCTAATCGCAGTGGCCAGGAACAGCA 214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              197 gettecaegeteceatgitectgeteetgggeageeteaegitgteggatetgetggeag 256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   215 AGTICCACTCAGCCATGTACCTGTTCCTCGGCAACCTGGCAGCCTGCTGGCAG 274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    257 gegecycctaegeegeeaacatectaetgtegggeegeteaegetgaaactgteeeeg 316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         275 GCGTCGCCTTCGTGGCCCAACACTTGCTCTCCGGACCTGTCACCCCTGTCATAACTCCCT 334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /clone_llb="Rat Gene Index, normalized rat, Rattus norvegicus cDNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       contact the ATCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16.5%; Score 197.2; DB 11; Length 695; Similarity 60.8%; Pred. No. 9.2e-26; 22; Conservative 0; Mismatches 208; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Contact: Lee, NH
The Institute for Genomic Research
The Institute for Genomic Research
This Medical Center Drive, Rockville, MD 20850, USA
Tel: (301)-838-329
Far: (301)-838-0208
Far: (301)-838-0208
Fari: Inheseftyr.org
This clone is available through the ATCC, contact the tel#703-365-2700 for further information.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="Rattus norvegicus"
/db_xref="taxon:10116"
/clone="RGIAA01"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                180 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RHE, RPC, RPN"
209 c 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BF281107.1 GI:11212177
```

RSP

ö

Search completed: January 16, 2002, 23:03:58 Job time: 7680 sec

1007/17/100

Descripton	17. 17. 17. 17. 17. 17. 17. 17. 17. 17.	eb; min	
> 4	1197 100.0 1197 6 AX17832 1197 100.0 100680 9 AC01461 176 99.9 1198 6 AX13896 776 4 64.7 1203 10 AF233649 766 4 64.0 2437 10 BC012232 764 6 63.9 2171 10 BF115249 734.8 61.4 1165 10 AF377535 294.8 24.2 978 1 AX011704 277.2 23.2 978 4 AX011704 277.2 22.9 978 4 AX011704 271.4 22.7 1149 6 AX085541 269.6 22.5 1149 6 AX085541 269.6 22.5 1149 6 AX01379 269.6 22.5 1149 6 AX01379 269.6 22.4 978 10 AY011704 269.6 22.9 978 10 AY011704 269.6 22.9 978 10 AY011704 251.0 22.4 978 10 AY011704 251.0 22.4 978 10 AY011704 261.6 21.9 2232 6 AX085541 261.6 21.9 2232 6 AX011703 251.4 21.5 978 4 AX011703 251.4 21.5 978 4 AX011703 251.9 2232 6 AX011703 251.9 2232 6 AX011703 251.9 2232 6 AX011713 252.9 2 21.7 1695 5 AF164114 252.9 2 21.7 1695 5 AF164114 255.8 21.4 978 4 AX01173 255.8 21.1 1449 9 AX01173 255.8 21.1 1449 9 AX01173 255.8 21.1 17678 2 AL61741 251.0 978 4 AX01173 252.2 21.1 17678 2 AL61741 252.2 21.1 17678 2 AL61741 251.0 978 4 AX01173 252.1 17678 2 AL61741 251.0 978 4 AX01173	ALIGNMENTS 1197 bp DNA 7 from Patent W00136473. GI:14346837 IS Metazoa; Chordata; Cran Eutheria; Primates; Cata Wood, L.S., Parodi, L.A., Schellin, K.A., Kaytes and Huff R.M., Schellin, K.A., Acotocotocotocotocotocotoco	Patent: WO 0136473-A 77 25-MAY-2001. PHARMACIA & UPJOHN COMFANY (US) Location/Qualifiers 1. 1197
Result No. 8	0 11 200 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	RESULT AX147832 LOCUS DEFINITION ACCESSION VERYWORDS SOURCE ORGANISM REFERENCE AUTHORS	
GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd.	1c search, using sw model anuary 16, 2002, 20:58:03; 5-09-842-316-1 atgagtcgggctgctgcgc atgagtcggggctgctgcgc atgagtcggggctgctgcgc ppp 10.0, Gapext 1.0 72140 seqs, 8248589755 ress. s satisfying chosen parametth: 0 72140 seqs, 8248589755 ress. s satisfying chosen parametth: 0 72140 seqs, 8248589755 ress. s satisfying chosen parametth: 0 72140 seqs, 8248589755 ress. s satisfying chosen parametth: 0 72140 seqs, 8248589755 ress. spb_br: 0 7240 pb_br:	21: em_ov:* 22: em_pat:* 23: em_ph:* 24: em_ph:* 25: em_ro:* 25: em_ro:* 26: em_sta:* 27: em_vi:* 29: em_rvi:* 29: em_rvi:* 31: em_htgo_hum:* 31: em_htgo_luv:* 32: em_htgo_luv:* 33: em_htgo_luv:* 34: em_htgo_luv:* 35: em_htgo_luv:* 35: em_htgo_luv:* 36: em_htgo_luv:* 36: em_htgo_luv:* 37: em_htgo_luv:* 38: em_htgo_luv:* 39: em_htgo_luv:* 31: em_htgo_luv:* 32: em_htgo_luv:* 33: em_htgo_luv:* 34: em_htgo_luv:* 35: em_htgo_luv:* 36: em_htgo_luv:*	SUMMARIES

Thu

```
DEFINITION
ACCESSION
                                                                                                              VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                   source
                                                                                                                                                                                                                                                                                          BASE COUNT
ORIGIN
                                                                                                                                           REFERENCE
AUTHORS
TITLE
                                                                                                                                                        JOURNAL
REFERENCE
AUTHORS
TITLE
JOURNAL
                                                                                                                                                                                     REFERENCE
AUTHORS
TITLE
JOURNAL
               961
     961
                                                                                                                                                                                                                                                                                                                                                    61
                                                                                           AC011461
                                                                                                                                                                                                                                                              FEATURES
            셤
                        ò
                                 셤
                                                   요
                                                                     셤
                                                                                                                                                                                                                                                                                                                                         g
      ò
                                           ö
                                                              å
                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                    ö
                                      ö
                                                                                     240
                                                                                                                   240
                                                                                                                           360
                                                                                                                                                        360
                                                                                                                                                                      540
                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                    600
                                                                                                                                                                                                                                             gcgtccgtgctgagcctcctggccatcgcgctggagcgcagcctcaccatggcgcgcagg 420
                                                                                                                                                                                                                           900
                                                                                                                                                                                                                                                                                                                         Gaps
                                               9
                                                        9
                                                                                                                                              1 atggagtcggggctgctgcggcggcggcggtgagcgaggtcatcgtcctgcattacaac
                                                    ctcggacgccaccgcgcttccacgctcccatgttcctgctcctgggcagcctcacgttg
                                                                                                                  CTCGGACGCCACCCGCGCTTCCACGCTCCCATGTTCCTGCTCCTGGGCAGCCTCACGTTG
                                     °.
                             Length 1197;
                                     Indels
                           Ouery Match 100.0%; Score 1197; DB 6; Best Local Similarity 100.0%; Pred. No. 1.3e-167; Matches 1197; Conservative 0; Mismatches 0;
         u
         220
/organism="Homo sapiens"
/db_xref="taxon:9606"
449 c 389 g 220
         ಥ
         139
         BASE COUNT
ORIGIN
                                                                                     121
                                                                                              121
                                                                                                        181
                                                                                                                 181
                                                                                                                                                       301
                                                                                                                                                                 361
                                                                                                                                                                                             421
                                                                                                                                                                                                                                    541
                                                                                                                                                                                                                                                                                                                                             901
                                                                                                                                              301
                                                                                                                                                                          361
                                                                                                                                                                                    421
                                                                                                                                                                                                                          541
                                                                                                                                                                                                                                                                                                       781
                                                                                                                                                                                                                                                                                                                781
                                                                                                                                                                                                                                                                                                                                                      901
                                                        셤
                                                                 ò
                                                                          원
                                                                                     ö
                                                                                              셤
                                                                                                       ð
                                                                                                                음
                                                                                                                                  요
                                                                                                                                                      g
                                                                                                                                                                         g
                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                               g
                                                                                                                           õ
                                                                                                                                             ò
                                                                                                                                                                õ
                                                                                                                                                                                           8
                                                                                                                                                                                                                유
                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                         å
                                                                                                                                                                                                                                                                                                                                 გ
                                                                                                                                                                                    ö
                                                                                                                                                                                                      à
                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                             ò
```

```
2 (bases 1 to 100680)
Direct Submission
Submitted (07-ocr-1999) Production Sequencing Facility, DOE Joint
Genome Institute, 2800 Mitchell Drive, Walnut Creek, CA 94598, USA
3 (bases 1 to 100680)
DOE Joint Genome Institute and Stanford Human Genome Center.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
1 (bases 1 to 100680)
DOE Joint Genome Institute and Stanford Human Genome Center.
Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Direct Submission
Submitted (31-MAY-2001) DOE Joint Genome Institute, 2800 Mitchell
Brive, Walnut Creek, CA 94598, USA
On MAY 31, 2001 this sequence version replaced 91:13752679.
Draft Sequence Produced by DOE Joint Genome Institute
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1021 gcggctgaggcttccgggggcctgcgccgctgctgccccgggccttgatggggcttc 1080
                                                                                                                  1021 GCGCTGAGGCTTCCGGGGGCCTGCGCGCGTGCCTGCCCCGGGGCCTTGATGGGAGCTTC 1080
                                                                                                                                                                                                                                                                                                                                                                                                A PRI 31-MAY-2001 clone CTC-429L19, complete sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      tacaccygcaagctccycygtycycyctaccayccygytyccygycygycygycycyacoc 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Gaps
                                                                                                                                                                                                                                           Length 100680;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               www.jgl.doe.gov
Finishing Completed at Stanford Human Genome Center
www.shgc.stanford.edu
guality: Phrap Quality >-40 100% of Sequence;
Stimated Total Number of Errors is 0.
5TS Content:
SHGC-53359 G36605
SHGC-63493 G48302.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%; Score 1197; DB 9;
100.0%; Pred. No. 1.8e-168;
tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /organism="Homo sapiens"
/db_xref="taxon:9606"
/chromosome="19"
/clone="CTC-429119"
a 25942 c 26581 g 23919 t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Location/Qualiflers
1. .100680
                                                                                                                                                                                                                                                                                                                                                                                                DNA
19
                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens chromosome
AC011461
                                                                                                                                                                                                                                                                                                                                                                                                                                                            AC011461.4 GI:14269680
                                                                                                                                                                                                                                                                                                                                                                                                100680 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match 100.
Best Local Similarity 100.
Matches 1197; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ø
                                                                                                                                                                                                                                                                                                                                                                                                AC011461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 24238
```

ö

m

```
RESULT
AF317676
LOCUS
                                                                                                 TITLE
                                         VERSION
KEYWORDS
SOURCE
                                                                                                                                                       mRNA
                                                                                             AUTHORS
                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                     241
                                                                                                                     FEATURES
                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                     ò
         41820 TACACCGGCAAGCTCCGCGGTGCGCGCTACCAGCCGGGTGCCGGCCTGCGCGCCGACGCC 41879
                                        41999
                                                           42059
                                                                       42479
                                                                                                                                                                                                                                                                42599
                                                                                                                                                                                                                                                         42659
                                                                                                                                                                                                                                                                                         240
                                                toggatctgctggcaggcgccgcctacgccaacatcctactgtcggggccgctcacg 300
                                                                                                                                                                                                                                                                                    gtctgctgcgggacgccactcctgcggcagagacccgagtggctcccagcagtcggcgagc 1020
                                                                                                         gggcccgccgtctccagtcgggggcgcacgctggcgatggcagccgcggcctggggc 480
                                                                                                                                                                    999
                                                                                                                                                                                       720
                                                                                                                                                                                                                                                                                                       geggetgaggetteegggggetgeetgeetgeeceegggeettgatgggagette 1080
                                                                                                                                                                                                                                                                                                                           agcggctcggagcgctcatcgccccagcgcgacgggctggacaccagcggctccacaggc 1140
                                                                                                                                                                                                                             840
                                                                                                                                                                                                                                               900
                                                                                                                                                                                                                                                                                                                                             ttcgtgggcatcctggccgctatctgcgcacctacgcgcgcatctactgccaggtacgc
                                                                                                                                                                                     gragocatotragggcccctctcctgctgttgctcgacgtggcgtgcccggcgcgc
                                                                                                                                                                                                                               241
                                                                  301
                                                                                                        421
                                                                                                                                               541
                                                                                                                                                        42300
                                                                                                                                                                  601
                                                                                                                                                                                     661
                                                                                                                                                                                              12420
                                                                                                                                                                                                                           781
                                                                                                                                                                                                                                                                                                       1021
                                                                                                                                                                                                                                                                 901
                                                                                                                                                                                                                                                                          42660
                                                                                                                                                                                                                                                                                    961
                                                                                                                                                                                                                                                                                                                          1081
                                                                                                                                                                                                                                                                                             42720
                                                                                                                                                                                                                                                                                                                42780
                                                                                                                                                                                                                                                                                                                                    42840
g
          ô
                  a
                            ò
                                    요
                                            ò
                                                       g
                                                                          g
                                                                                              a
                                                                  ò
                                                                                     õ
                                                                                                       à
                                                                                                                 a
                                                                                                                                    ద
                                                                                                                            ò
                                                                                                                                              ö
                                                                                                                                                       g
                                                                                                                                                                          g
                                                                                                                                                                  õ
                                                                                                                                                                                    ò
                                                                                                                                                                                            g
                                                                                                                                                                                                       ò
                                                                                                                                                                                                                g
                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                            요
                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                       윱
                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                             ö
```

```
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 1197) Im.D. and Lynch,K.R. Characterization of a human sphingosine 1-phosphate receptor, Edg-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AVCAFTILLEDIA VILUGERIPRETILCSELTESPILAGRAVIANTUS VCAFTILLESPILAGRAVIANTUS VCAFTILLESPILAGRAVIANTUS VCAFTILAGRAVIANTUS VCAFTILAGRAVIANTUS VCAFTILAGRAVIANTUS VCAFTILAGRAVIANTUS VCAFTILAGRAVIANTUS VCATILGELPALGWANATAWO VCATILGELPALGWANG VCATILGELPALGWANG VCATILGELPARGGATSTRARER PRELALLETIS VVLLAGVAGPIELLILDVA SOGSAGAEAS GGGERECLPFGLIGGSFSGSERSSPORDGIDTSGSTGSFBGGERDSGSFSGSFBAD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       translation="MESGLLRPAPVSEVIVLHYNYTGKLRGARYQPGAGLRADAVVCL"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                            gene, complete
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note="similar to sequence presented in GenBank Accession
Number AC011461"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9t99t9t9cct9gc9gt9t9cgccttcatcgtgctagagaatctagccgtgttgttggtg 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61 tacaccygcaagctccgcggtgcgcgctaccagccgggtgccggcctgcggcgcggcgcc 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      06-DEC-2000
                                                                                                                                                                                                                                                                Unpublished
2 (bases 1 to 1197)
Im, Do and Lynch, R.R.
Direct Submission
Submitted (31-OCT-2000) Pharmacology, University of Virginia of Medicine, 1300 Jefferson Park Avenue, Charlottesville, VA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61 TACACCGGCAAGCTCCGCGGTGCGCGCTACCAGCCGGGTGCCGGCCTGCGCCGACGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /product="sphingosine 1-phosphate receptor Edg-8"
/protein_id="AAG38113.1"
/db_xref="GI:11559846"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 atggagtcgggctgctgcggccggcggtgagcgaggtcatcgtcctgcattacaac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       <1. .>1197
/product="sphingosine l-phosphate receptor Edg-8"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                tcggatctgctggcaggcgcctacgccgccaacatcctactgtcggggccgctcacg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 1197;
                   Homo saplens sphingosine 1-phosphate receptor Edg-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1. 1197
/note="G protein-coupled receptor"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 1195.4; DB 9;
Pred. No. 2.3e-167;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                                                                                                                                                                                Location/Qualifiers
1. .1197
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        390 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /chromosome-"19"
                                                           AF317676
AF317676.1 GI:11559845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99.98;
99.98;
  1197 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        449 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity
Matches 1196; Conserv
AF317676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      139
                                                                                                                         human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                           source
                 DEFINITION
                                                                                                                                           ORGANISM
                                                                                                                                                                                                     REFERENCE
AUTHORS
TITLE
JOURNAL
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BASE COUNT
ORIGIN
                                                           ACCESSION
```

ö

REFERENCE 1 (bases 1 to 1198) AUTHORS Harland,L. TITLE Human g-protein coupled receptor JOURNAL Patent: EP 1009051-A 111-APR-2001; FEATURES Location/Qualifiers Source /organism-"Homo sapiens" //db.xref="texon:9606" BASE COUNT 139 a 449 c 389 g 221 t	6; Length 1198; 0; Indels 0; Gap greatcytctycattacaac 6	121 121 181 181 241 241	4-6 m-0 0-0	481 gtytogotgotcotoggactotgocagostgggaattgoctgggtogoctggac 540	61 gccaacgcgcgcgccgccgggaccgggaccgggaccacccgaccgggggg
241 TCGGATCTGCTGGCGCCTACGCCGCCAACATCCTACTGCGGGCCGCTCACG 300 301 ctgaaactgtccccgcgctctggttcgcacgggagggggggg	481 gtgtcgctgctcctcgggctcctgccagcgtgggattgcctgggtcgcctggac 540	9c99c9cctgccggcacgggaccacctcgacccgggcg	841 acctgtcctgtactcctgcaggccgatcccttcctgggactggccatggccaactcactt 900	1021 gcggctgaggcttccgggggcctgcctgcccccgggccttgatggagcttc	30-MAY-2

a ò 셤 g ò 요

5

윱 ö

```
ø
                  152
               BASE COUNT
ORIGIN
                                                                                                                                                                61
                                                                                                                                                                                                                                                                                                                                                                                                                                         361 (
                                                                                                                                                                                                                121
                                                                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                841
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              901
                                                                                                                                       g
                                                                                                                 ò
                                                                                                                                                                ö
                                                                                                                                                                                     윰
                                                                                                                                                                                                                                       유
                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                ä
                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                        ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 (bases 1 to 1203)
In.D.-S., Helse,C.E., Ancellin,N., O'Dowd,B.F., Shen,G.-j,
Heavens,R.P., Kliby,M.R., Hla,T., Mandala,S., McAllister,G.,
George,S.R. and Lynch,K.R.
Characterization of a novel sphingosine 1-phosphate receptor, Edg-8
J Biol. Chem. 275 (19), 14281-14286 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         O'Dowd, B.F., Shen, G., Heavens, R.P., McAllister, G., George, S.R. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AVCAFIVLENLAVLLVIGRHPRFHAPMFLLIGSLTLSDLLAGAAYATNILLSGPITLR
LSPALWFAREGGVFVALAASVLSLLAIALERHLTMARRGPAPAASRARTLAMAYAAWG
LSLLIGLLPALGWNCLGRLEACSTVUPLYAKAYVLFCVLAFLGILAAICALYARIYQQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VRANARRLRAGPGSRRATSSSRSRHTPRSLALLRTLSVVLLAFVACWGPLFLLLLLDV
ACPARACPVLLQADPFLGLAMANSLLNPIIYTFTNRDLRHALLRLLCCGRGPCNQDSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (12-FEB-2000) Pharmacology, University of Virginia, 1300 Park Avenue, Charlottesville, VA 22908, USA Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                translation="MESGLLRPAPVSEVIVLHYNYTGKLRGARYQPGAGLRADAAVC!"
                                                                                                                                                                                                                                                                                                                                                                                                                                        Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae;
                                                                                                                                                                                                                                                                                                                   AF233649 1203 bp mRNA ROD 18-MAY-2000
Rattus norvegicus sphingosine 1-phosphate receptor Edg-8 (Edg-8)
AF233649
                                                                                              1081 agoggeteggagegeteategeeceagegegaeggetggaeacaeeagegetecaeagge 1140
                                                             ctgaaccccatcatctacacgctcaccaaccgcgacctgcgcccacgcgctcctgcgcctg
                                                                                                                                                                                                           1081 AGGGCTCGGAGCGCTCATCGCCCCAGCGCGGCTGGACACCAGCGCCTCACCAGGC
                                                                                                                                                                                                                                             'product-"sphingosine 1-phosphate receptor Edg-8"
'protein_id-"AAF35912.1"
'db_xref="GI:7025517"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein-coupled receptor"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1. .1203
/organism="Rattus norvegicus"
/db_xref="taxon:10116"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Im, D., Heise, C.E., Ancellin, N.,
Ridby, M.R., Hla, T., Mandala, S.,
Lynch, K.R.
Licet Submission
Submitted (12. FEB-2000) Pharmaco
                                                                                                                                                                                                                                                                                                                                                                                                                        Rattus norvegicus
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rođentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /gene="Edg-8"
                                                                                                                                                                                                                                                                                                                                                                                      AF233649.1 GI:7025516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        'dene="Edg-8"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Z (bases 1 to 1203)
Im, D., Heter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .1203
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  'note="G
                                                                                                                                                                                                                                                                                                                                                                                                               Norway rat.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Jefferson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                10799507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Rattus.
                                                                                                                                                                                                                                                                                                                                                                                     VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                    LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              source
841
                       841
                                                                      901
                                                                                                                       961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
JOURNAL
MEDLINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PUBMED
REFERENCE
AUTHORS
                                              901
                                                                                               196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                        ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gene
                                                                                                                                                                                                                                                                                                                        AF233649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURES
                                                                                                                                                                                                                                                                                                            RESULT
```

```
NSLQRSPSAVGPSGGGLRRCLPPTLDRSSSPSEHSCPQRDGMDTSCSTGSPGAATANR
TLVPDATD"
                                                                                       3,
                                                                                                                                                   tacaccggcaagttccgcggtgcgcgctaccagccggtgccggcctgcgcggcggacgc 120
                                                                                                                                                                          120
                                                                                                                                                                                                180
                                                                                                                                                                                                                      180
                                                                                                                                                                                                                                           240
                                                                                                                                                                                                                                                                240
                                                                                                                                                                                                                                                                                                                                  360
                                                                                                                                                                                                                                                                                       300
                                                                                                                                                                                                                                                                                                 360
                                                                                                                                                                                                                                                                                                                                                                            420
                                                                                                                                                                                                                                                                                                                                                                                                 420
                                                                                                                                                                                                                                                                                                                                                                                                                       480
                                                                                                                                                                                                                                                                                                                                                                                                                                            480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gccaacgcgcggcgcctgccggcacggcccgggac---tgcggggaccacctcgacccgg 717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          837
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CGCGCGTGTCCTGTTCTGCAAGCCGATCCCTTCCTGGGTCTAGCCATGGCTAACTCG 900
                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ttcgtgggcatcctggccgctatctgtgcactctacgcgcgcatctactgccaggtacgc
                                                                                                         1 atggagtcggggctgctgcggccggccggtgagcgaggtcatcgtcctgcattacaac
                                                                                                                                                             121 GCAGTGTGTGTGTGTGCGCTTTCATCGTGCTGGAGAACCTGGCTGTGCTCTTGGTG
                                                                                                                                                                                                                                                                                    toggatetgetggeaggegectacgecgecaacatectactgteggggeegecaeg
                                                                                                                                                                                                                                                                                                                                 ctgaaactgiccccgcgctctggitcgcacgggagggaggcgicticgiggcactcact
                                                                                                                                                                                                                                                                                                                                                                                                                     999cccgccgtctccagtcgggggggacgtggggagtggcagcggggctggggc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541 gettgetecactgtettgeegetetacgecaaggeetaegtgetettetgegtgetegee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GCCAACGCGCGTCGCCTGCGGGCCGGTCCTGGGTCCCGTAGGGCCCACGTCCTCCTCGCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        tttgtggcatgttggggcccctttcctgctgctgttgctcgacgtggcgtgcccggcg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cgcacctgtcctgtactcctgcaggccgatcccttcctgggactggccatggccaactca
                                                                                      <u>ن</u>
                                                                Length 1203;
                                                             Score 774; DB 10; Length 1
Pred. No. 3e-105;
); Mismatches 235; Indels
                     260
                      σ
                     365
                                                                                    .
0
                                                            Query Match
Best Local Similarity 79.6%;
Matches 954; Conservative
                   426 c
```

셤 à 셤 à g ò g

```
Source
                                                                                                                                                                                                                                                                                    BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       718
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     90390
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               90450
                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð. a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Consensus quality: 201303 bases at least Q40
Consensus quality: 206349 bases at least Q30
Estimated insert size: 206183; sum-of-contigs estimation
Quality coverage: 9.98 in Q20 bases; agaros-fp estimation
Quality coverage: 10.18 in Q20 bases; sum-of-contigs estimation.
** NOTE: This is a "working draft" sequence. It currently
** consists of 9 contigs. Gaps between the contigs
** are represented as runs of N. The contigs estimation.
** are represented as runs of N. The contigs
** of the gaps between them are based on estimates that have
provided by the submittor.
** This sequence will be replaced
** by the finished sequence as soon as it is available and
** the accession number will be preserved.
** 39120 60004: contig of 39119 bp in length
** 39220 60004: contig of 20785 bp in length
** 60005 60104: gap of unknown length
** 60005 60104: gap of unknown length
** 95593 95692: gap of unknown length
** 95593 116629: contig of 20337 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Unpublished

2 (bases 1 to 206533)

2 (bases 1 to 206533)

Direct Submission

Submitted (29-JUN-2000) Production Sequencing Facility, DOE Joint Genome Institute, 2800 Mitchell Drive, Walnut Creek, CA 94598, USA On Jul 18, 2000 Liss sequence version replaced g1:8810366.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Cranlata; Vertebrata; Euteleostomi; Mammalia; Eutherla; Rodentla; Sciurognathi; Muridae; Murinae; Mus. 1 (bases 1 to 206533)
DOE Joint Genome Institute.
                                                                                                                                                                                                                                                                                                                                                      AC073749 206533 bp DNA HTG 18-JUL-2000
Mus musculus clone RP23-311A19, WORKING DRAFT SEQUENCE, 9 ordered
                                                                                                                                                                   1015 gcgagcgcgggctgaggcttcc---gggggcctgcgcgcgctgccccgggccttgat 1071
                                                                                                         1072 gggagetteageggeteggagegeteategeeeeagegegaegggetggaeaeeagegge 1131
ctggtctgctgcggacgccactcctgcggcagaga---cccgagtggctcccagcagtcg 1014
                                                                                                                                                                                                                     Project Information
Center Project Name: 1856315
Center clone name: RPCI-23_311A19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Web site: http://www.jgi.doe.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Center: Joint Genome Institute
Center Code: JGI
                                                                                                                                                                                                                                                                                                                                                                                                                              AC073749.2 GI:9256781
HTG; HTGS_PHASE2; HTGS_DRAFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Summary Statistics
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      house mouse.
                                                                                                                                                                                                                                                                                                                                                    LOCUS
DEFINITION
                                                                                                                                                                                                                                                                                                                                                                                                                              VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                         1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
TITLE
JOURNAL
REFERENCE
AUTHORS
                                 961
                                                                                                                                                                                                                                                                                                                RESULT
AC073749
                                                                                                                                                                                                                                                                                                                                                                                                              ACCESSION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMMENT
```

```
89790 AIGGAGCCCGGGCTGCTGCGCCGCCGCCGCTGAGTATTGTCCCTTCACTACAAC 89849
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               90150 GCGTCGGTGCTGAGCCTCTTGGCCATTGCTTTAGAGCGCCACCTTACCATGGCCCGTCGT 90209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        90269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    90270 GCGTCGCTATTGCTCGGGCTGCTACCCGCGCTGGGACCTGCAACTTAGGACGCCTGGAA 90329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     90449
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  90389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            099
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gcycgtcgcaagccgcgctcgctggcctgcgcacgctcagcgtggtgctcctggcc 777
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1 atggagtcggggctgcggccggcggtgagcgaggtcatcgtcctgcattacaac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            toggatetgetggcaggcgcctacgccgccaacatectactgteggggccgctcacg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9tgtcgctgctcctcgggctcctgccagcgctgggattgcctgggtcgcctggac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ctcggacgccacccgcgcttccacgctcccatgttcctgctcctgggcagcctcacgttg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 90030 Tegeneergecededededectraceceaceracitations
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         999cccgcgcccgtctccagtcggggggcacgctggcagtggcagccggggcctggggc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TICTEGECATCCTEGCTECCATCTGTECCTCTATGCAAGGATTTACTGTCAGGTECGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361 gcgtccgtgctgagcctcctggccatcgcgctggagcgcagcctcaccatggcgcgcagg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 90210 GARCCGCACCCGCCGCCAGTCGCGCTCGCACGCTGGCGATGGCGGTGGCCCCTGGGGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gcttgctccactgtcttgccgctctacgccaaggcctacgtgctcttctgcgtgctcgcc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           90330 ACCIGCICCACCGIGCIGCTGCCGCICIAACGCCIAIGIGCICITCIGCGIGCIGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ttogtgggcatcctggccgctatctgtgcactctacgcgcgcatctactgccaggtacgc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gccaacgcgcggcctgccgggcacgggcccgggactgcggggaccacctcgacc---cgg
                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 206533;
6530 116729: gap of unknown length

6730 118553: contig of 1824 bp in length

8554 174963: contig of 56310 bp in length

8664 175063: contig of 56310 bp in length

1964 175063: gap of unknown length

176297: contig of 1234 bp in length

5398 176397: gap of unknown length

189065: contig of 11568 bp in length

1966 188065: gap of unknown length

1066 206533: contig of 18468 bp in length

10cation/Qualifiers
                                                                                                                                                                                                                                                                                                                                library 23"
801 others
                                                                                                                                                                                                                                                                                                                                                                                                                                      64.2%; Score 76%; DB 2; Length 20 ilarity 79.8%; Pred. No. 2.3e-105; Conservative 0; Mismatches 230; Indels
                                                                                                                                                                                                                                                         /organism="Mus musculus"
/db_xref="taxon:10090"
/clone="RP23-311A19"
/clone="lb="RPC1 mouse BAC 1"
50848 c 51975 g 50533 t
                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 945; Conserv
                                                                                                          175064
176298
176398
187966
188066
                                                                118654
174964
                                                                                                                                                                                                                                                                                                                                                   52376 a
```

ä

778

ò පු 838

g ò

ò 셤 ò g

928

8

ò

셤

ò

ò

mouse.

male

```
/product="Similar to sphingosine 1-phosphate receptor"
/protein_id="AaH12232.1"
/protein_id="AaH12232.1"
/protein_id="AaH12232.1"
/protein_id="Englished |
/protein_id="MepGLished |
/protein_id="MepGLished |
/protein_id="MepGLished |
/protein_id="MepGLished |
/productor |
/produ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        209 AIGGASCCCGGGCTGCTGCGGCCGGCGCGGTGAGGTTATTGTCCTTCACTACAAC 268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61 tacaciggcaagetecgcggtgcgctaceagecgggtgccggcetgcggcgaegec 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              giggigitgectggeggtgtgegeetteategtgetagagaatetageegtgttgttggtg 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           atggaytcggggctgctgcggcggcggcggtgagcgaggtcatcgtcctgcattacaac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             toggatetgetggeaggegeetacgeegacateetactgteggggeegeteacg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gcgtccgtgctgagcctcctggccatcgcgctggagcgcagcctcaccatggcgcgcagg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ttogtgggcatcttggccgctatctgtgcactctacgcgcgcatctactgccaggtacgc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                541 gcttgctccactgtcttgccgctctacgccaaggcctacgtgctcttctgcgtgctcgcc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 10; Length 2437;
                                                                                                                                                                                month old
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                              /db_xref="taxon:10090"
/clone="wKc:18977 ImAGE:4194177"
/tlssue_type="Liver, normal. 5 mc/clone_lib="NOT_CGAP_LI9"
/lab_host="bH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 766.4; DB 10;
Pred. No. 2.8e-104;
0; Mismatches 231;
                                                                                                                                                                                                                                                                                      /note="Vector: pCMV-SPORT6'
209. .1411
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        537
                                                                      /organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                683 9
                                                                                                                                                                                                                                                                                                                         209. .1411
/codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 64.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        697 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 79.77
Matches 944; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        .
تا
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    520
                               source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         644
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      209
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         501
                                                                                                                                                                                                                                                                                                                         CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: http://image.llnl.gov Series: IRAK Plate: 24 Row: k Column: 8 This clone was selected for full length sequencing because it passed the following selection criteria: Hexamer frequency ORF analysis, Similarity but not identity to protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mus musculus
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              García,
                                                                                                                                                                                                                                                                                                                                                                                                            90570 riccrecciecreses accestrirer riccraria cia a de consecuence 
                                                                                                                                                                                                                                                                                                          90630 GEGEGETETECEGETETECTGCAGGEGGATCCTTCCTGGGTCTAGCCATGGCTAACTCG 90689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        90869
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BC012232 2437 bp mRNA ROD 08-AUG-2001
Mus musculus, Similar to sphingosine 1-phosphate receptor, clone
MGC:18797 IMAGE:4194177, mRNA, complete cds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Submitted (06-AUG-2001) National Institutes of Health, Mammalian Gene Collection (MGC), Cancer Genomics Office, National Cancer Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ctggtctgctgcggacgccactcctgcggcagaga---cccgagtggctcccagcagtcg 1014
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1015 gcgagcgcggctgaggcttcc---gggggcctgcgccgctgcctgccccgggccttgat 1071
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1072 gggagetteageggeteggagegeteategeeceagegegaegggetggaeaceagegge 1131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Web site: http://www.hgsc.bcm.tmc.edu/cdna/
Contact: vilalon@bcm.tmc.edu.
Vilalon, D.K., Luna, R.A., Hale, S.M., Hulyk, S., Lu, X., G
A.M., Holloway, M., Telford, B, Hodgson, A., Bouck, J., Yu,
Muzny, D.M., Glbbs, R.A.
90510 TCCCGGCACACGCCGGGTCGCTGCCTGCTTACCTTACCGTGGTGCTCCTGGCC
                                                                                                                 ttigtgggatgttggggcccctcttcctgctgctgttgctcgacgtggcgtgccggcg
                                                                                                                                                                                                                                                              cgcacctgtcctgtactcctgcaggccgatcccttcctgggactggccatggccaactca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        90810 cccagracraccasccrrccaracraccraccaccraccraccaccarccracar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Contact: MGC help desk
Email: gapbs-rémail.ini,gov
Tissue Procurement: Jeffrey E. Green, M.D.
CDNA Library Preparation: Life Technologies, Inc.
DNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL.)
DNA Sequencing Center
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       90930 TCCACCGGCAGTCCTGGAGTAGCAACCGCCAACCGGAGCCTGGT 90973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1132 tccacaggcagccccggtgcacccacagccgcccggactctggt 1175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       USA
NIH-MGC Project URL: http://mgc.nc1.nih.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BC012232.1 GI:15126592
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Center code: BCM-HGSC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (bases 1 to 2437)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   trausberg, R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              onse mouse
```

VERSION KEYWORDS SOURCE ORGANISM

AUTHORS TITLE JOURNAL

REMARK COMMENT

FEATURES

REFERENCE

LOCUS

RESULT BC012232

ACCESSION

ë

Gaps

6

9

420

628 480 689 900

808 9 868

240 448 300 508 360

661

셤 ð

a 8

ö g ò 셤 ç 요 à 셤 ò g ò a ò g

```
/translation-"MESGLLRPAPVSEVIVLHYNYTGKLRGARYQPGAGLRADAAVCI
                                                                                                                                                                                                                                                                                                                                                                                                              gtggtgtgcctggcggtgtgcgccttcatcgtgctagagaatctagccgtgttgttggtg 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      378 GCAGTGTGCTTTGGCTTTTCATCGTGCTGGAGAACCTGGCTGTCTTGGTG 437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241 toggatotgotggcaggcgccgcctacgccgccaacatcctactgtcggggccgctcacg 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gcytccytyctyaycctcctyyccatcycytyyaycycaycctcaccatyycycyayg 420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gcttgctccactgtcttgccgctctacgccaaggcctacgtgctcttctgcgtgctcgcc 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GCGTCGGTGCTGAGCCTCCTGGCCATTGCTATAGAGCGCCCACCTTACCATGGCCCGTCGT 677
                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GCCAACGCGCGTCGCCTGCGGCCGGTCCTGGGTCCCGTAGGGCCACGTCCTCCTCGCGA 977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  777
                                                                                                                                                                                                                                                                                                                                                     1 atggagtcggggtgctgctgcggcggcggcggtgagcgaggtcatcgtcctgcattacaac 60
                                              protein-coupled
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gggcccgcgcccgtctccagtcgggggggcacgctggcgatggcagccgcgggcctggggg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gtytegetgeteeteggggeteetgecagegetgggattgeetggggtegeetggae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GCCFGCTCCACCGTGTTGCCGGTGTACGCCAAGGCCTATGTGCTCTTCTGCGTGCTGGCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gocaacgcgcggcgctgccggcacggcccgggac---tgcggggaccacctcgacccgg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gcgcgtcgcaagccgcgctcgctggctgctgcgcacgctcagcgtggtgtgctcctggcc
                                                                                                                                                                                                                                                                                        Score 764.4; DB 10; Length 2171;
Pred. No. 5.9e-104;
0; Mismatches 241; Indels 9;
                                             U
                         /codon_start=1
/product="growth factor-regulated
receptor Nrg-1"
                                                                                                                                                                                                                                 446
                                                                        /protein_id="AAF15395.1"
/db_xref="GI:6531395"
                                                                                                                                                                                                                                 668 9
                                                                                                                                                                                                                                                                                        Query Match 63.9%;
Best Local Similarity 79.1%;
Matches 948; Conservative
                                                                                                                                                                                                                               630 c
factor'
                                                                                                                                                                                                                               427
                                                                                                                                                                                                                              BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       858
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          601
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                718
              CDS
                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          엄
                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             රු <u>අ</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           合
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 (bases 1 to 2171)
Glickman, M. Malek, R.L., Kwitek-Black, A.E., Jacob, H.J. and Lee, N.H.
Direct Submission
Submitted (17-DEC-1998) Molecular & Cellular Biology, The Institute
for Genomic Research, 9712 Medical Center Drive, Rockville, MD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1 (bases 1 to 2171)
Glickman,M., Malek,R.L., Kwitek-Black,A.E., Jacob,H.J. and Lee,N.H.
Molecular cloning, tissue-specific expression, and chromosomal
localization of a novel nerve growth factor-regulated G-protein-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Rattus norvegicus
Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                growth
                                                                                                                   1015 gcgagcgcggctgaggcttc---gggggcctgcgccgctgcctgcccgggccttgat 1071.
                                                                                                                                                                                                ctggtctgctgcggacgccactcctgcggcagaga---cccgagtggctcccagcagtcg 1014
                                                                                                                                                                                                                                                                                                                                                                                                                          1072 gggagetteageggeteggagegeteategeeceagegegaegggetggaeaceagegge 1131
                                                                                                                                                                                                                                                                                                                                                                                                                                             1169 CTGCTGTGTGGCCGCGGACCCTGCAACAACTCCTCCAACAGCTTGCAGCGATCC 1228
                                                                                                                                                                                                                                                                                                                                                                                              gocaacgogogogoctgooggoacggooogggactgoggggaccacotogaco---ogg 717
                                                                                                                                                                                cgcacctgtcctgtactcctgcaggccgatcccttcctgggactggccatggccaactca 897
                                                                                                                                                                                                                                          cttctgaaccccatcatctacacgctcaccaaccgcgacctgcgccacgcgctcctgcgc 957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OD 07-DEC-1999
G protein-coupled
                        869 GCCAACGCGCGTCGCCTGCGGGCCCTGGGTCCCGCAGGGCCCACCTCGTCGTCGCGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                nerve
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /cell_type="pheochromocytoma"
/note="repressed in PC12 cells treated with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 D8Rat52"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Cell. Neurosci. 14 (2), 141-152 (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Rattus norveglcus growth factor-regulated receptor Nrg-1 mRNA, complete cds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /map="between markers D8Rat54
/cell_line="PC12"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1. .2171
/Organism="Rattus norvegicus"
/db_xref="taxon:10116"
/chromosome="8"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              coupled receptor, nrg-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AF115249
AF115249.1 GI:6531394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Norway rat.
Rattus norv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20850, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                         868
                                                                                                                                                                                                                                                                                                   928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DEFINITION
                                                                                                                                                                               838
```

RESULT E AF115249 LOCUS

JOURNAL MEDLINE PUBMED REFERENCE AUTHORS TITLE JOURNAL

FEATURES

AUTHORS TITLE REFERENCE

'n

à g ò g

용 ò

ò 셤 ò 셤 g

ò

ą

ò

```
Similarity
                               ø
                              142
                                                                             Query Match
Best Local S
Matches 910
                             BASE COUNT
ORIGIN
                                                                                                                              39
                                                                                                                                                                                                                                                                                                                                 279
                                                                                                                                                                                                                                                                                                                                                                                  339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        481 (
                                                                                                                                                                                                                                                                                 219
                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                  399
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                459
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  519
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            901
                                                                                                                                                  g
                                                                                                                                                                                                     원
                                                                                                                                                                                                                                                        ద
                                                                                                                                                                               ö
                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                  å
                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             of California, San
), USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /translation="VIVLHYNYTGKLRGARYOPGAGIRADAAVCLAVCAFIVLENLAV
LLVLVRHPRFHAPMFLLLGSLTLSDLLAGAAYATNILLSGPLTLRLSPALWFAREGGV
FVALAASVLSLLAIALERHLTMARRGPAPASRARTLAMAVAAWGASLLLGLLPALGW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NCLGRLETCSTYLPLYAKAYVLFCVLAFLGILAAICALYARIYCQVRANARRLFRGPG
SRRATSSSRSRHTPRSLALLRTLSVVLLAFVACWGPLFLLLLLDVACPARACPVLLQA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Craniata; Vertebrata; Euteleostomi;
Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mu
1 (bases 1 to 1165)
Yang, A.H., Zhang, G. and Chun, J.J.M.
Molecular, cloning of the mouse sphingosine-1-phosphate receptor
TCCCGGCACACGCCACGGTCGTTGGCCCTGCTCCGCACGCTTAGCGTGGTGCTCCTGGCC 1037
                       ctggtctgctgcggccactcctgcggcagaga...cccgagtggctcccagcagtcg 1014
                                                                                                                                                                                                                         1218 crecrecrecrecececececerecaaccaacaccacaacaacaacaaracaacaacaarec 1277
                                                                                                                                                                                                                                                                                         AF327535 1165 bp mRNA ROD 05-MAR-2001
Mus musculus sphingosine-1-phosphate receptor LPB4 (Lpb4) mRNA,
partial cds.
                                                                                                                         cttctgaaccccatcatctacacgctcaccaaccgcgacctgcgccacgcgctcctgcgc 957
                                                                                                                                                                                                                                                                                                                         /note-"similar to Edg8 in Homo saplens and Rattus norvegicus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /product="sphingosine-1-phosphate receptor LPB4"
/protein_id="AAK15485.1"
/db_xref="GI:13194608"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ', University of
CA 92093-0636,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        dence, Lpb4
Unpublished
Unpublished
Unpublished
(bpa)
(bases 1 to 1165)

Yang, A. H., Zhang, G. and Chun, J. J. M.
Direct Submission
Submitted (16-NOV-2000) Pharmacology, Un.
Diego, 9500 Gilman Drive, La Jolla, CA 9:
Location/Qualifiers
1. 1165
/organism="Mus musculus"
/strain="Swiss Webster/NIH"
/db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                               AF327535.1 GI:13194607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /gene="Lpb4"
<1. .1165
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /gene="Lpb4"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         house mouse,
                                                                                                                                                                                                                                                                                                                                                                                                                                                   ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               source
 978
                                                                        838
                                                                                                1098
                                                                                                                                                 1158
                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
                                                                                                                        868
                                                                                                                                                                          928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE
AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gene
                                                                                                                                                                                                                                                                                                                                                                                                   AF327535
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EATURES
                                                                                                                                                                                                                                                                                                                                                                                         RESULT
```

```
DPFLGLAMANSLLNPIIYTFTNRDLRHALLKLLCCGRGPCNODSSNSLORSPSAAGPS
GGGLRRCLPPTLDRSSSPSEHLSPQODGVDTSCSTGSPGVATANRSLVPTATD*
424 c 346 g 253 t
                                                                                                      ñ
                                                                                                                                                                                                                             99 tgccggcctgcgcgcgacgccgtggtgtgctggcggtgtgcgccttcatcgtgctaga 158
                                                                                                                                                                                                                                                                                   278
                                                                                                                                                                                                                                                                                                                                     338
                                                                                                                                                                                                                                                                                                                                                             300
                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                       458
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       518
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               480
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         578
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            698
                                                                                                                                                                                                                                                                                                                                                                                                                                                              420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             755
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     720
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ggtcatcgtcctgcattacaactacaccggcaagctccgcggtgcgcgctaccagccggg
                                                                                                                                           61 CGCCSGCCTGCGCGCAGACGCCGCAGTGTGTCTGGCTGTGTGTGCCTTCATTGTGCTGGA
                                                                                                                                                                                                                                                                                              aggodicticgiggoactoactgogiccgigctgagoctoctggccaicgcgctggagog
                                                                                                                                                                                                                                                                                                                                                                                                  301 GGGGGTCTTGGTGGCGGTCGCGGGGGGGGGGGGGGCGTTTGGCCATTGCTTTAGAGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                    cagecteaceatggcgcagggggcccgcccgtetecagtcgggggcgcacgetggc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gctcttgggcagcctcacgttgtcggatctgctggcaggcggcgcctacgccgccaacat
                                                                                                                                                                                                                                                                                                                                                                                                                                                   gctcagcgtggtgctcctggcctttgtggcatgttggggcccctcttcctgctgctgtt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cctactgtcggggccgctcacgctgaaactgtcccccgcgctctggttcgcacgggaggg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gatggcagccgcggggcgtgtcgctgctcctcgggctcctgccagcgctgggctg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9999accacctcgacc---cgggcgcgtcgcaagccgcgctcgctggctgctgcgcac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             721 CCTTAGCGTGGTGCTCCTGGCCTTCGTGGCCTGGGGGACCGCTGTTTCTCTTGCTATT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gggactggccaactcacttctgaaccccatcatctacacgctcaccaaccgcga
                                                                             Length 1165
                                                                                                      6
                                                                           61.4%; Score 734.8; DB 10; Length 79.4%; Pred. No. 1.8e-99; Ive 0; Mismatches 227; Indels
                                                                                       Local Similarity (2.2) ses 910; Conservative
```

셤

à

셤

ò 셤 ö

```
Linton, L., Nusbaum, C., Lander, E., Abraham, H., Allen, N., Anderson, S., Baldwin, J., Barna, N., Bastien, Y., Beda, F., Anderson, S., Baldwin, J., Barna, N., Bastien, Y., Beda, F., Boguslavkiy, L., Boukhgalter, B., Brown, A., Burkett, G., Boguslavkiy, L., Boukhgalter, B., Brown, A., Burkett, G., Campoplano, A., Castie, A., Choepel, Y., Colangelo, M., Collins, S., Collymore, A., Cooke, P., Dearellano, K., Dewar, K., Chlaz, J.S., Dodge, S., Domino, M., Doyle, M., Ferreita, P., FitzHugh, W., Gage, D., Gand-Pierre, N., Grant, G., Hagos, B., Heaford, A., Aratan, L., Grand-Pierre, N., Grant, G., Hagos, B., Heaford, A., Totton, L., Howland, J.C., Illev, I., Johnson, R., Jones, C., Kann, L., Karatas, A., Klein, J., Lagorque, K., Loke, C., Loke, K., Macdonald, P., Marquis, N., McCarthy, M., McEwan, P., McGurk, A., McKernan, K., McPheeters, R., Leu, C., Liu, G., Loke, K., Macdonald, P., Marquis, N., Murphy, T., Naylor, J., Norman, C.H., Oliver, J., Peterson, K., Plerre, N., Oliver, J., Peterson, K., Plerre, N., Stange-Thomann, N., Stolanor, S., Severy, P., Spencer, B., Santos, R., Triglilo, J., Young, G., Zainoun, J., Zimmer, A. and Zody, M., Wyman, D., Ye, W.J., Young, G., Zainoun, J., Zimmer, A., and Zody, M., Wyman, D., Ye, W.J., Welley, R., Wyman, D., Young, G., Zainoun, J., Zimmer, A., and Zody, M., Wyman, D., Ye, W.J., Kelley, R., Shane, S., Theodore, J., Thirell, A., Travers, M., Wyman, D., Ye, W.J., Young, G., Zainoun, J., Zimmer, A., and Zody, M., Wyman, D., Ye, W.J., Kelley, R., Shane, S., Theodore, J., Thirell, A., Travers, M., Wyman, D., Ye, W.J., Young, G., Zainoun, J., Zimmer, A., and Zody, M., Wyman, D., Ye, W.J., Shane, J., S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Submitted (22-MAR-2000) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA All repeats were identified using RepeatMasker:
Smit, A.F.A. & Green, P. (1996-1997)
http://ftp.genome.washington.edu/RW/RepeatMasker.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                 961 CTCCAACAGCTTGCAGCGATCCCCCAGTGCTGCGGGCCTTCCGGTGGTGGCCTGCGACG 1020
                                                                                                                                                             1050 ctgcctgccccgggccttgatgggagcttcagcggctcggagcgctcatcgccccagcg 1109
                                                                                                                                                                                                                                      1021 CrGcCrGCCAACCTrGGATCGCAGCTCTAGCCCATCAGAACACTTGTCTCCCCAGCA 1080
                                                                                                                                                                                                                                                                                                                       Center: Whitehead Institute/ MIT Center for Genome Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AC026510 62147 bp DNA HTG 22-MAR-2000
Homo sapiens clone RP11-163A20, LOW-PASS SEQUENCE SAMPLING.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NOTE: This record contains 79 individual sequencing reads that have not been assembled into contigs. Runs of N are used to separate the reads
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Contact: sequence_submissions@genome.wi.mit.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Birren, B., Linton, L., Nusbaum, C. and Lander, E. Homo sapiens, clone RP11-163A20
993 cccgagtggctcccagcagtcggcgagcgcggctgaggcttcc-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Center code: WIBR
Web site: http://www-seq.wi.mit.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Center clone name: 163_A_20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Center project name:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AC026510.1 GI:7283201
HTG; HTGS_PHASE0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (bases 1 to 62147)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (bases 1 to 62147)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1141 CCTGGT 1146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1170 tctggt 1175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AC026510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           human.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             REFERENCE
AUTHORS
TITLE
JOURNAL
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 1
AC026510
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMMENT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Locus
```

```
arbitrary. Low-pass sequence sampling is useful for oldentifying clones that may be geneerich and allows overlap relationships among clones to be deduced. However, it should not be assumed that this clone will be sequenced to completion. In the event that the record is updated, the accession number will be preserved.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10105 10204: gap of 100 bp 10, length 10205 10897: contig of 693 bp in length 10898 10997: gap of 100 bp 10998 11699: contig of 701 bp in length 11699 11799 12488: contig of 690 bp in length 12899 12589: gap of 100 bp 12589 1372: contig of 684 bp in length 13273 13372: gap of 100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    contig or occ.

ap of 100 bp

contig of 684 bp in length

100 bp

'n length
                                                                                                                                 2243: contig of 687 bp in length
3: gap of 100 bp
3: 200 optimate 100 bp
                                                                                                                                                                   su29: contig of 686 bp in length 9: gap of 100 bp 3785: con+1-
                                                                                                     contig of 665 bp in length
of 100 bp
contig of 691 bp in length
                                                                                                                                                                                                                                                                                 688 bp in length
                                                                                                                                                                                                                                                                                                                                                        of 100 bp
contig of 705 bp in length
of 100 bp
contig of 704 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                  JO bp
699 bp in length
                                                                                                                                                                                                                                                     bp in length
                                                                                                                                                                                                                                                                                                                                          681 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ap of 100 bp : contig of 690 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             contig of 681 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 contig of 689 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           93: gap of 100 bp
25899: contig of 706 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5 19704: gap of 100 bp 20355: contig of 661 bp in 6 20455; gap of 100 bp 6 21154: contig of 689 bp in 5 21254; gap of 100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          150: gap of 100 bp
14855: contig of 705 bp in
955: gap of 100 bp
15656: contig of 701 bp in
756: gap of 100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                16458 contig of 702 bp in 100 bp 17359: gap of 100 bp 17350: gap of 100 bp 18034: contig of 684 bp in 1134: gap of 100 bp 1134: gap of 100 bp 118814: contig of 680 bp in 18814: contig of 680 bp in 18814: contig of 680 bp in
                                                                                                                                                                                                                                                                                             00 pp
683 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                              9323 9422: gap of 100 bp 9423 10104: contig of 682 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              p of 100 bp
contig of 678 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ap of 100 bp:
contig of 686 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                94: gap of 100 bp
25093: contig of 699 bp
                                                                                                                                                                                                                                      of 100 bp
contig of 677 b
                                                                                                                                                                                                                                                                                                                            ďq
                                                                                                                                                                                                                                                                 001
                                                                                                                                                                                                                                                                                               100
                                                                                                                                                                                                                                                                                                                            001
                                                                                                                                                                                                                                                                                                                                                                                                                  001
                                                                                                                                                                                                                                                                                 contig of
                                                                                                                                                                                                                                                                                                              contig of
                                                                                                                                                                                                                                                                                                                                          contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                  contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  23505:
                                                                                                                                                                                                                                                                                                                                                                                    9: gap of
8523: con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         22035: gap of
                                                                                                                                                                                                                                                                                                                        13: gap of
6914: con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gap of
                                                                                                                                                                                                                                                                                                                                                                                                               8623: gap of
9322: con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gap of
                                                                                                                                              1457 1556: gap of 2243: co
                                                                                                                                                                                                                                                               4662: gap of
                                                                                                                                                                                                                                                                                               gap of
                                                                                                                 666 765: gap of
766 1456: cc
                                                                                                                                                                                                                                      gap (
                                                                                                     999
                                                                                                                                                                                                                                                                                 5350
                                                                                                                                                                                                                                                                                                           6133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14050
                                                                                                                                                                                                                                                                                                                         6134 6233: 9
6234 6915
6915 7014: 9
7015 771
                                                                                                                                                                                        2344 302
3030 3129: 9
                                                                                                                                                                                                                                   3786 3885;
3886 456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18914:
                                                                                                                                                                          2244 2343:
                                                                                                                                                                                                                                                                                               5450:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17350:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   23605:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14955
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             25193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       22821
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                24394
                                                                                                                                                                                                                                                                               4663
5351
5451
```

```
98 39397; gap of 100 bp 11 length 40074; contig of 677 bp in length 40074; contig of 677 bp in length 55 40864; contig of 690 bp in length 55 40864; gap of 100 bp 100 bp 52 41651; contig of 687 bp in length 55 41651; contig of 687 bp in length 51 4160; contig of 709 bp in length 51 4340; contig of 680 bp in length 41 4340; contig of 709 bp in length 41 4340; contig of 709 bp in length 41 4340; contig of 709 bp in length 41 44848; contig of 701 bp in length 41 44848; contig of 701 bp in length 45 4648; contig of 689 bp in length 50 4538; contig of 689 bp in length 51 4538; gap of 100 bp 100 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         84 46527: gap of 100 bp 100 bp 100 ap 100 ap
gap of 100 bp 10 contig of 674 bp in length 30 contig of 674 bp in length 30 contig of 674 bp in length 30 contig of 686 bp in length 30 contig of 687 bp in length 30 contig of 687 bp in length 30 contig of 686 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100 bp

1 690 bp in length

100 bp

100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  464: yer
4651: contig or ev. -.
1651: gap of 100 bp
50338: contig of 687 bp in length
100 bp
100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             of two to continuous of the continuous of the continuous point of 694 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100 bp
688 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     100 bp
694 bp in length
100 bp
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       p of 100 bp contig of 679 bp in
                                                                                                                                          11,
2333: gap of 6, 6,
29030: ~
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                37025: gap of 10
37727: contig of 37827: gap of 1
   99: gap of 1
26673: contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          34659: gap of 1
35347: contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ō
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                18: gap of 1
51912: contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             54373: gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          contig of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 contig of
                                                                           26773: gap of
27447: contig c
27547: gap of
28233: contig c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             31512: gap of 32198: contig
                                                                                                                                                                                                                                                                                                29130: gap of
29832: contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   33869: gap of
34559: contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        contig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             con.
32983;
                                                                                                                                                                                                                                                                                                                                                                                                                       con, sap of 31412;
                                                                                                                                                                                                                                                                                                                                                                       29932: gap of
30628: con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                33083: gap of
33769: conf
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gap of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            36232; gap of
36925; cont
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          38601: gap of
39297: cont
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         50438: gap of 51118: con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               52012: gap of
52691: con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              91: gap of 53479: con
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18501:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 36132
                                                                                                                                                                                                                                                                                                                                                                                                                                                          30728:
                                                                                                                                                                                                                                 28333:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     32298:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      49651:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      52791:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        51218:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             53579:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         35447
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    51119
51219
51913
52013
52692
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2 (bases 1 to 978)
Murphy, W.J., Eizirik, E., Johnson, W.E., Zhang, Y.P., Ryder, O.A. and
O'Brien, S.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Lemúr catta
Eukaryota: Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Strepsirhini; Lemuridae; Lemur.
1 (bases 1 to 978)
Murphy,W.J., Eizirik,E., Johnson,W.E., Zhang,Y.P., Ryder,O.A. and
O'Erien,S.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Direct Submission
Submitted (01-NOV-2000) Laboratory of Genomic Diversity, National
                                                                                                            cogotatetytycaetetacycycyatetactyceaytacycycaacycygegycyc 676
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      actectgoggcagagacecgagtggcteccageagtcggcgagcgcggctgaggcttecg 1036
                                                                              1897
                                                                                                                                                                                                                                                                                                                 1957
                                                                                                                                                                                                                                                                                                                                                             2017
                                                                                                                                                                                                                                                                                                                                                                                           616
                                                                                                                                                                                                                                                                                            96/
                                                                                                                                                                                                                                                                                                                                                                                                                              976
                                               Gapa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  14-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Molecular phylogenetics and the origins of placental mammals Nature 409 (6820), 614-618 (2001)
                                                                                                                                                                                                                                                          tgccgctctacgccaaggcctacgtgctcttctgcgtgctcgccttcgtgggcatcctgg
                                                                                                                                                                          TGCCGCTCTACGCGTACGTGCTCTTCTGCGTGCTCGCCTTCGTGGGCCATCCTGG
                                                                                                                                                                                                                                                                                          cgctggccttgctgctgcacgctcagcgtggtgctcctggcctttgtggcatgttggggcc
                                                                tgccggcacggcccgggactgcgggaccacctcgacccggggcgcgtcgcaagccgcgct
                                                                                                                                                                                                                                                                                                                                                                                 tgcaggccgatcccttcctgggactggccatggccaactcacttctgaaccccatcatct
                        Length 62147;
                                             ö
                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   55060: contig of 687 bp in length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AY011720 978 bp DNA PRI Lemiur catta EDG1 (EDG1) gene, partial cds. AY011720 G1:12829905
                    Query Match 53.7%; Score 642.8; DB 2; Best Local Similarity 99.7%; Pred. No. 1.1e-86; Matches 644; Conservative 0; Mismatches 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ring-tailed lemur.
54374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             LOCUS
DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                              437
                                                                                                                                                                             1718
                                                                                                                                                                                                                        1778
                                                                                                                                                                                                                                                                                                              1898 (
                                                                                                                                                       557
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          11
                                                                                                                                                                                                  617
                                                                                                                                                                                                                                                                                                                                                          1958
                                                                                                                                                                                                                                                                                                                                                                                                     2018
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TITLE
JOURNAL
MEDLINE
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
JOURNAL
                                                                                                                                                                                                                                             677
                                                                                                                                                                                                                                                                                          737
                                                                                                                                                                                                                                                                                                                                     797
                                                                                                                                                                                                                                                                                                                                                                                857
                                                                                                                                                                                                                                                                                                                                                                                                                            917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2138
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1037
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 1
AY011720
                                                                                     a
                                                                                                            ð
                                                                                                                             g
                                                                                                                                                                         q
                                                                                                                                                      δ
                                                                                                                                                                                                 ò
                                                                                                                                                                                                                     ద
                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                          g.
                                                                                                                                                                                                                                                                                                                                õ
                                                                                                                                                                                                                                                                                                                                                     ద
                                                                                                                                                                                                                                                                                                                                                                              ç
                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  á
```

```
/translation-"KDMGIKLTSVVFILICSFIILENIFVLLTIWKTKKFHRBMYFFI
GNLALSDLLAGVAYTANLLLSGATTYKLTPAQWFLREGSMFVALSASVFSLLAIAIER
YITMLKWKTHNGSNSSREFLLISACWYTSLILGGLPIMGWNCISFLSSCSTVLPLYHK
HYILFCTTWFHLLLSIVILYCRIYSLVRTRSRRLTFRKNLSKASRSSEKSLALLKTV
ITVLSYBTAGAAPALFILLLDVGCKYWTGSILEKABFPLVLAVLNSGTNPIIYTLTNK
EMRRAFIRIMSCCKCPSGDSTGKKRNPIIAGVEFSRSKSDNSSHPQKEDG"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        hazel mouse.

Muscardinus avellanarius

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;

Mammalia; Butheria; Rodentia; Sciurognathi; Myoxidae; Muscardinus

1 (bases 1 to 978)

Murphy, W.J., Elzirik, E., Johnson, W.E., Zhang, Y.P., Ryder, O.A. and

Oblicho, S.J.

    (bases 1 to 978)
    Murphy, W.J., Eizirik, E., Johnson, W.E., Zhang, Y.P., Ryder, O.A. and O'Brien, S.J.

                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            National
                                                                                                                                                                                                                                                                                                                                           942 ccacgcgctcctgcgcctggtctgcggacgccactcctgcggcagagacccgagtgg 1001
                                                                                                                                                                                                                                                                          776
                                                                                                                                                                                                                                                   941
                                                                                                                                                                                                                                                                                                                                                                             597 GAGCGICICCAAGGCCAGCCGCAGCICCGAGAAGICGCIGGGGCGCIGCICAAGACGGICAI 656
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AYO11704 978 bp DNA ROD 14-FEB-2001
Muscardinus avellanarius EDG1 (EDG1) gene, partial cds.
AYO11704
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Molecular phylogenetics and the origins of placental mammals Nature 409 (6820), 614-618 (2001)
                                                                                                                                              gyccatgyccaactcacttctgaaccccatcatctacacgctcaccaaccgcgacctgcg
                                                      cytygtyctcctggcctttgtggcatgttgggggcccctttcctgctgctgttgctcga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Direct Submission
Submitted (01-MOV-2000) Laboratory of Genomic Diversity, 18 Submitted (01-MOV-2000) Laboratory of Genomic Diversity, 10 Submitter-Percentage (10-10, MD 21702, USA
Location/Qualifiers
1 .978
/organism="Muscardinus avellanarius"
//db.xref="taxon:39082"
/gene="EDG1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   24.2%; Score 289.8; DB 10; Length 978;
                                                                                                                                                                                                                                                                                                                                                                                                                                        1002 ctcccagcagtcggcgagcgggctgaggcttccgggggg 1041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          897 AGTCAAGCGGCCCATCGTCGCGGGCGTGGAATTCAGCCGC 936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /protein_id="AAK01973.1"
/db_xref="GI:12829875"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /product="EDG1"
<1. .>978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AY011704.1 GI:12829874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /gene="EDG1"
/codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /gene="EDG1"
<1. >070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   .>978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1,00
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACCESSION
VERSION
KEYWORDS
SOURCE
ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEFINITION
                                                 762
                                                                                                                                                                                                                                              882
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE
REFERENCE
AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AY011704
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query
                                              ò
                                                                                             ద
                                                                                                                                                                                       g
                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                  . B
                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                           /protein_id=*Aako1988.1"
/do.xref=*C1:13829906*
//do.xref=*C1:13829906*
//do.xref=*C1:13829906*
//do.xref=*C1:13829906*
//do.xref=*C1:13829906*
//do.xref=*C1:13829906*
//do.xref=*C1:1382906*
//do.xref=*C1:1382906*
//do.xref=*C1:1382906*
//do.xref=*C1:1382906*
//do.xref=*C1:1282906*
//do.xref=*C1:1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             102 eggeetgegegegegegtggtgtgtgeetggeggtgtgegeetteategtgetagaa 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CATCTTGTCTGCTGACCATCTGGAAGACCAAGAAGTTCCACGCCCCATGTACTATT 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cctgggcagcctcacgttgtcggatctgctggcaggcgcgcctacgccgccaacatcct 281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  282 actgtcggggccgctcacgctgaaactgtcccccgcgctctggttcgcacgggagg 341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 189 CTTGTCCGGGGCCACCACCTACAAGCTCACCCGGGGCGCAGTGCTGCTGCGGGAAGGGAG 248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              368
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cgicticgiggcactcactgcgtccgtgctgagcctcctggccatcgcgctggagcgcag 401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cotcaccatggcgcgcagggcccgcgctccagtcggggggcgcacgctggcgat 461
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      761
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CGCCTGAAGCCCACCTCGGTGGTGTTCATCCTCATCTGCTGCTTCATCTGGGAGAA 68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       162 totagoogtgttgttggtgotoggacgccacccgcgttccacgctcccatgttcctgct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      702 gaccacctcgacccgggcgcgtcgcaagccgcgctcgctggccttgctgcgcacgctcag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              489 CCTCTTCTGCACCACGACGTTCACGCTGCTGCTGCTCCCATCGTCATTCTCTTACTGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               582 getettetgegtgetegeettegtgggeateetggeegetatetgtgeactetaegegeg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 642 catctactgccaggtacgcgccaacgcgcgcgcctgccggcacggcccgggactgcggg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             549 GATCTACTCCTTGGTCAGGACTCGCAGCCGGCTGACCTTCCGC------AA
Cancer Institute-FCRDC, P.O. Box B, Bldg. 560, Rm. 11-10,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 978;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 24.6%; Score 294.8; DB'9; Length 9
Best Local Similarity 58.1%; Pred. No. 1.4e-34;
Matches 546; Conservative 0; Mismatches 382; Indels
                                                                   1. .978
/organism="Lemur catta
/db_xref="taxon:9447"
<1. .>978
                  Frederick, MD 21702, USA
Location/Qualifiers
                                                                                                                                      <1...>978
/gene="EDG1"
/product="EDG1"
<1..>978
                                                                                                                                                                                                                                                                                                                 /codon_start=1
/product="EDG1
                                                                                                                                                                                                                                    /gene="EDG1"
<1. .>978
                                                                                                                                                                                                                                                             <1. .>978
/gene="EDG1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  402
                                                                                                                                           MRNA
                                                                                                                                                                                                                 gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       223
                                            FEATURES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BASE CC
ORIGIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
```

GI:12829917

```
Jamaican fruit-eating bat,
                 AY011726.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Sim
Matches 535;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      source
                                                                                              ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                                                                                    JOURNAL
MEDLINE
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    222
                                                                                                                                                                                                                                        AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                       AUTHORS
              VERSION
KEYWORDS
                                                                                                                                                                                                        REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FEATURES
                                                                                                                                                                                                                                                                                          TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ð
                                      ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                tggtctgctgcggacgccactcctgcggcagagacccgagtggctcccagcagtcggcga 1018
                                                                                                                                                                                            tgctcggacgccacccgcgcttccacgctcccatgttcctgctcctgggcagcctcacgt 238
                                                                                                                                                                                                                                                                                                            tgtcggatctgctggcaggcgccgcctacgccgccaacatcctactgtcggggcgctca 298
                                                                               119 ccgiggigigicciggcggigigiccitcatcgigciagagaaiciagccgigitgiigg 178
                                                                                                                                                                                                                                  86 CCATTTGGAAAACCAAGAAGTTCCACCGGCCCATGTACTATTTATCGGCAACCTGGCCC 145
                                                                                                                                                                                                                                                                                                                                                              reredeacerereges de resectados de conservados de consecuencias de consecuencia de consecuencia
                                                                                                                                                                                                                                                                                                                                                                                                                     CCTACAAGCTCACCCCCCCCAGTGGTTTCTGCGGGAAGGCAGCATGTTCGTGGCCCTGT 265
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ctgcgtccgtgctgagcctcctggccatcgcgctggagcgcagcctcaccatggcgcgca 418
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              326 TGAAACTICACAACGGGAGCAACAGCICCCGCTCCTTTCTTGATCAGCGCCTGCTGGG 385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            539 acgettgetecaetgtettgeegetetaegeeaaggeetaegtgetettetgegtgeteg 598
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                599 ccttcgtgggcatcctggccgctatctgtgcactctacgcgcgcatctactgccaggtac 658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         506 TCTTCACCCTGCTCTCCTCCTCATCCTGTACTGCAGGATCTACTCCTGGTCA 565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                615
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            719 cgcgtcgcaagccgcgctcgctggcctgctgcacgctcagcgtggtgctcctggcct 778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      839 gcacctgtcctgtactcctgcaggccgatcccttcctgggactggccatggccaactcac 898
                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    34 AGACCTGCAGCATCCTCTTCAAAGCGGAGTACTTCCTGGTGCTGGCGGTGCTCAACTCCG 793
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                899 ttetgaaccccatcatctacacgetcaccaaccgcgacetgcgccacgcgctcctgcgcc 958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CGGTGGTGTTCATCCTCATTTGCTCCTTCATTATCCTAGAGAACATCTTTGTCTTGCTGA 85
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           913
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gggggcccgcgccgtctccagtcgggggcgcacgctggcgatggcagccgcggcctggg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           446 CCAGCTGCTCCACGGTGCTGCCGCTCTACCACAAGCACTATATCCTCTTCTGCACCACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gegecaacgegegectgeeggeacggeecgggaetgegggaecaeetegaeeegggg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     566 GGACTCGAAGCCGCCGTCTGACCTTCCGCAAGAACCTTTCCAAGGCCAGC------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              616 --CGCAGCTCGGAGAAGTCGCTGGCCTTGCTCAAGACGGTGATCATCGTGCTGAGCGTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                779 ttgtggcatgttggggcccctcttctgctgtgttgttgacgtggcgtgccggcgg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               854 reargrecrecrasgrececeasesearcrecaeceseaarreaasesesecearea
                                      12;
  Pred. No. 7.6e-34;
0; Mismatches 372; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gcgcggctgaggcttccgg 1037
Local Similarity 58.2%;
nes 535; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               914 TAGCGGGGGTGGAATTCAG 932
                                                                                                                                       26
                                                                                                                                                                                                                                                                                                         239
                                                                                                                                                                                                                                                                                                                                                              146
                                                                                                                                                                                                                                                                                                                                                                                                                     299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               419
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1019
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   629
                                                                                  à
                                                                                                                                       음
                                                                                                                                                                                            ð
                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
```

14-FEB-2001

AY011726 977 bp DNA MAM 1 Artibeus jamaicensis EDG1 (EDG1) gene, partial cds. AY011726

RESULT 13 AY011726 LOCUS DEFINITION ACCESSION

```
YILFCTTVFTVLLLSIVILYCRIYSLVRTRSRRLTFRKNASKTSRSSEKSIALLKTVI
IVLSVFIACWAPLFILLLLDVGCKVNTCSILFKAEYFLVLAVLNSGTNPIIYTLTNKE
MRRAFIRILSCCKCPRGEAAGKFKRPIIAGVEFSRSKSDNSSHPQKDG*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /translation="ENGLKVTSVVFILICSFIIVENIFVLLTIWKTKKFHRPMYYFIG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NLALSDLLAGVAYVINLLFSGANTYKLTPVQWFLREGSMFVALSASVFSLLAIAIERY
ITMLKMKLYNKSNSCRSFLLISACWVISLVLGGLPLMGWNCVGALPGCSTVLPLYHKH
                                                                                                                  Ryder, O.A. and
                                                                                                                                                                                                                      2 (bases 1 to 977)
Murphy, W.J., Eizirik, E., Johnson, W.E., Zhang, Y.P., Ryder, O.A. and
O'Brien, S.J.
Artibeus jamaicensis
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Chiroptera; Microchiroptera; Phyllostomidae;
                                                                                                                                                                                                                                                                                                              of Genomic Diversity, National, Bldg. 560, Rm. 11-10,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        102 cggcctgcgcgacgccgtggtgtgcctggcggtgtgcgccttcatcgtgctagagaa 161
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         281
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cgtettegtggcactcactgcgtccgtgctgagcctcctggccatcgcgctggagcgag 401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CATGTTTGTGGCTCTGTCCGTGTTCAGCCTGCTGGCCATCGCCATCGAGCGCTA 307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         67
                                                                                                                                                       Molecular phylogenetics and the origins of placental mammals Nature 409 (6820), 614-618 (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  8 CGCCTCAAAGTGACCTCGTGGTGTTCATTCTCATCTGCAGCTTCATCATCGTCGAGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              162 totagcogtgttgttggtgctcggacgccacccgcgttccacgctcccatgttcctgct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CATCTTTGTCTTGCTGACCATTTGGAAGACCAAGAAGTTCCACCGGCCCATGTACTATTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CATCGCCAACCTGGCCCTCTCAGACCTGCTGGCGGGGGTGGCCTACGTGATCAACCTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cetgggicagecteaegttgteggatetgetggeaggegeegeetaegeegaeatet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  23.2%; Score 277.2; DB 4; Length 977; llarity 56.9%; Pred. No. 5.5e-32; Conservative 0; Mismatches 393; Indels 12
                                                                                                                                                                                                                                                                                                                                                                                                  1. 977
/organism="Artibeus jamaicensis"
                                                              Stenodermatinae, Artibeus.
1 (bases 1 to 977)
Murphy, W.J., Elzirik, E., Johnson, W.E.,
                                                                                                                                                                                                                                                                                    Direct Submission
Submitted (0.1NOV-2000) Laboratory o
Cancer Institute-FCRDC, P.O. Box B,
Frederick, MD 21702, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /protein_id="AAK01994.1"
/db_xref="G1:12829918"
                                                                                                                                                                                                                                                                                                                                                                                                                                              /db_xref-"taxon:9417
                                                                                                                                                                                                                                                                                                                                                                               Location/Qualiflers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                262 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               'product-"EDG1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /codon_start=3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /gene="EDG1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /gene-"EDG1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /gene="EDG1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /product="
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                326 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       7.794.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
```

```
BASE COUNT
ORIGIN
                                                                                                                                                                                                                                                            24
                                                                                                                                                                                                                                                                                                                                                                                                                                          264
                                                                                                                                                                                                                                      117
                                                                                                                                                                                                                                                                                 177
                                                                                                                                                                                                                                                                                                       84
                                                                                                                                                                                                                                                                                                                              237
                                                                                                                                                                                                                                                                                                                                                     144
                                                                                                                                                                                                                                                                                                                                                                         297
                                                                                                                                                                                                                                                                                                                                                                                               204
                                                                                                                                                                                                                                                                                                                                                                                                                     357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       537
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             444
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              657
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        111
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    837
             CDS
                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                        ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     合
                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalla; Eutheria; Insectivora; Soricidae; Sorex.

1 (bases 1 to 978)

Murphy, W.J., Etzirik, E., Johnson, W.E., Zhang, Y.P., Ryder, O.A. and O'Brien, S.J.

Molecular phylogenetics and the origins of placental mammals

Nature 409 (6820), 614-618 (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    of Genomic Diversity, National Bldg. 560, Rm. 11-10,
                                                                                                                                                                                                                                                                                                                                                             ccacgcgctcctgcgcctggtctgctgcggacgccactcctgcggcagagacccgagtgg 1001
                                                                                        641
                                                                                                                                                                               761
                                                                                                                                                                                                    655
                                                                                                                                                                                                                          821
                                                                                                                                                                                                                                             656 CATCGTGTGTGTCTTCATCGCTGCTGGCGCCCCTCTTCATCCTGCTCCTGCTGGA 715
                                                                                                                                                                                                                                                                                941
                                                                                                                                                                                                                                                                                                                             521
                                             581
                                                                 487
                                                                                                                                   701
                                                                                                                                                       548 GATCTATTCCCTGGTCAGGACTCGCAGCCGCCGGCTCACCTTCCGCAAGAACGCGTCCAA 607
                                                                                                                                                                                                                                                                       cgtggcgtgcccggcgcgcacctgtcctgtactcctgcaggccgatcccttcctgggact 881
                                                                                                                                                                                                                                                                                                                                                                                CATCAGCGCCTGCTGGTCATCTCGCTGGTGCTGGCCGCCTGCCGCTCATGGGCTGGAA 427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2 (bases 1 to 978)
Murphy,W.J., Eizirik,E., Johnson,W.E., Zhang,Y.P., Ryder,O.A.
O'Brien,S.J.
                                          tigoctigggtogoctiggacgottigctoctgtottigcogototacgocaaggootacgt
                                                                                                                                  catctactgccaggtacgcgccaacgcgggcgcctgccgggcacgggcccggggactgcggg
                                                                                                                                                                              gaccacetegacecggggegegtegeageegegetegetggettgetgegeaegeteag
                                                                                                                                                                                                                         cgtggtgtctcctggcctttgtggcatgttggggcccctcttcctgctgctgttgctcga
                                                         gctcttctgcgtgctcgccttcgtgggcatcctggccgctatctgtgcactctacgcgcg
                                                                                                 ggcagccgcggcctggggcgtgtcgctgctcctcgggctcctgccagcgctgggctggaa
                                                                                                                                                                                                                                                                                                                 ggccatggccaactcacttctgaaccccatcatctacacgctcaccaaccgcgacctgcg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MAM
cds.
                                                                                                                                                                                                                                                                                                                                                                                                      1002 ctcccagcagtcggcgagcgcggctgaggcttccgggggc 1041
                                                                                                                                                                                                                                                                                                                                                                                                                     896 GTTCAAGCGCCCATCATCGCCGGCGTGGAGTTCAGCCGC 935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AY011694 978 bp DNA
Sorex araneus EDG1 (EDG1) gene, partial
AY011694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Direct Submission
Submitted (01-NOV-2000) Laboratory o
Cancer Institute-FCRDEC, P.O. Box B,
Frederick, MD 21702, USA
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /organism="Sorex araneus"
/db_xref="taxon:42254"
<1. .>978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /gene="EDG1"
/product="EDG1"
<1. .>978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AY011694.1 GI:12829854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          European shrew.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sorex araneus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEFINITION
ACCESSION
VERSION
KEYWORDS
SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               source
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gene,
                                                                                                                                                                                                                                                                                                                 883
                                                                                                                                                                                                                                                                                                                                                            942
 162
                                                                                     582
                                                                                                                                  642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE
JOURNAL
MEDLINE
REFERENCE
AUTHORS
                                          522
                                                                                                                                                                             702
                                                                                                                                                                                                                         762
                                                                                                                                                                                                                                                                    822
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 1
AY011694
LOCUS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURES
ð
                    a
                                          ò
                                                            g
                                                                                    à
                                                                                                       용
                                                                                                                              à
                                                                                                                                                  셤
                                                                                                                                                                           ò
                                                                                                                                                                                             셤
                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                           윱
                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                              용
                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                      g
```

```
/translation="KengikrisvvFillccfillenifvlLtiwkTkKFhrpmyyFi
SVLALSDLIAGYATYKLTPAOMYNLASAFYESLLATER
YITMLKWLHNGSNERSFLLISGATYKELTPAOMYNLASAFYESLLATER
YITMLKWLHNGSNERSFLLISAGWYISLILGGEPINGWNCIGALPGCSTVDELYH
HYILFCTTVFTLLLISIVILYCRIYSLVRTRSRRLTFRKNVSKASRSSEKSLLLKTV
INLSVFTACMARPLFILLDVQCKVKTCAILEKABEYELVLAYLNSATRRIITTLNK
EMRRAFTRIMSCCREGGSGGFGKFRRPIAGVEFSRSKSDNSSHPQKDDG"
341 c 237 g 215 t
                                                                                                                                                                                                                                                                                                                                                                               ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  929
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  716
                                                                                                                                                                                                                                                                                                                                                                                                                     ogcögtggtgtgcctggcggtgtgcgccttcatcgtgctagagaatctagccgtgttgtt 176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     323
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ggcgcgtcgcaagccgcgctcgctggcctgcgcacgctcagcgtggtgctcctggc 776
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ctttgtggcatgttggggcccctcttcctgctgctgttgctcgacgtggcgtgcccggc 836
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        896
                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         creeregretrearcrearcrecrecrearcrearcreasasacarcraearcraecr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ggtgctcggacgccaccgggcttccacgctcccatgttcctgctcctgggcagcctcac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cacgetgaaactgteeecegegetetggttegeagggagggagggegtettegtggeaet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTTCATCGCCTGCTGGGCCCCCTTTTCATCCTGCTCGCTGGACGTGGGCTGCAGGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gogcacctgtcctgtactcctgcaggccgatcccttcctgggactggccatggccaactc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GAAGACGTGTGTATCCTTTTCAAAGCTGAGTACTTCCTGGTGTTGGCTGTGCTCAACTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GATGAAACTGCACAACGCATCCTTCCTCCTTCCTGCTCATCAGCGCCTGCTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gggcgtgtcgtcctcgggctcctgccagcgctgggattgcctgggtcgcct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        564 CAGGACTCGGAGCCGACCTGCCTTCCGCAAGACGTTTCCAAGGCCAGC-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cagggggcccgccgtctccagtcggggggggcgctggcgatggcagccgcggcctg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GGTCATCTCCCTCATCCTGGGTGGCCTGCCCATCATGGGCTGGAACTGCATCGGGGCGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                acycyccaacycygcygcctyccygcacygcccygyactycygygaccacctcyacccy
                                                                                                                                                                                                                                                                                                                                                                             12;
                                                                                                                                                                                                                                                                                                                                     Length 978;
                                                                                                                                                                                                                                                                                                                                   Score 275; DB 4; Length 97
Pred. No. 1.2e-31;
0; Mismatches 385; Indels
                                                                                    /protein_id="AAK01963.1"
/db_xref="GI:12829855"
                                       /codon_start=1
/product="EDG1"
<ī..>978
/gene="EDG1"
                                                                                                                                                                                                                                                                                                                                     Query Match, 23.0%;
Best Local Similarity 57.1%;
Matches 528; Conservative
                                                                                                                                                                                                                                                     185
```

```
/translation-"KDNGIKPTSVVFILICCFIILENIFVLLITWKTKKFHRBMYYFI
GNLALSDLLAGVAYTANLLLSGATTYKLTPAQWFLREGSMFVALSASVFSLLAIAIER
YITMLKWKLHNGSNFFRELISACWYISLINGGLPIMGWNGYILSSCSTVLPIYHK
YYLLCTTVFTLLLSIVILYCRIYSLVYRTSRRLFFKNASMSKASRSSEKSLALLKTV
IIVLSAFIACWAPLETLLLVGCKYKTCDILFKARFFLTFKNASGTNPIIYTLTNK
EMRRAFIRINSCCKCPSGDSAGKVKRPIIAGVEFSRSKSDNSSHPQKDDG"
                                                                                                                                                                                                                                                                                                                                                                                         northern pika.
Ochotona hyperborea
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Lagomorpha; Ochotonidae; Ochotona.

1 (bases 1 to 978)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Murphy, W.J., Eizirik, E., Johnson, W.E., Zhang, Y.P., Ryder, O.A. and O'Brien, S.J.
Direct Submission
Submitted (01-NOY-2000) Laboratory of Genomic Diversity, National Cancer Institute-FCRDC, P.O. Box B, Bldg. 560, Rm. 11-10, Frederick, MD 21702, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  and
                                                                             cctggtctgctgctgcggccactcctgcggcagagacccgagtggctcccagcagtcggc 1016
852 carcarerecrecrecrecrecededegeacrecadageaaarreadedecedar 911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Murphy, W.J., Elzirik, E., Johnson, W.E., Zhang, Y.P., Ryder, O.A. O'Brien, S.J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             119 ccgtggtgtctggcggtgtgcgcttcatcgtgctagagaatctagccgtgttgttgg 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCATTTGGAAAACCAAGAAATTCCACGCCCCATGTACTTATTGGCAACCTGGCCC 145
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Molecular phylogenetics and the origins of placental mammals Nature 409 (6820), 614-618 (2001)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       179 tgctcggacgccacccgcgcttccacgctcccatgttcctgctcctgggcagcctcacgt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 978;
                                                                                                                                                                                                                                                                                             AY011717 978 bp DNA MAM Ochocona hyperborea EDG1 (EDG1) gene, partial cds AY011717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ouery Match 22.9%; Score 274.6; DB 4;
Best Local Similarity 57.1%; Pred. No. 1.3e-31;
Matches 527; Conservative 0; Mismatches 384;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             iocation/Qualifiers
1. 978
/079anism="Ochotona hyperborea"
/db_xref="taxon:130834"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /protein_id="AAK01985.1"
/db_xref="G1:12829900"
                                                                                                                                                     1017 gagogoggotgaggottocgggggo 1041
                                                                                                                                                                                            912 CATCGCCGGCGTGGAATTCAGCCGC 936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         243 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  'product-"EDG1"
                                                                                                                                                                                                                                                                                                                                                      AY011717.1 GI:12829899
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /gene="EDG1"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         318 c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          . . > 978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         191
                                                                                                                                                                                                                                                        RESULT 15
AY011717
                                                                                                                                                                                                                                                                                                                                                                                         SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  source
                                                                                                                                                                                                                                                                                                               DEFINITION
                                                                           957
                                                                                                                                                                                                                                                                                                                                  ACCESSION
VERSION
KEYWORDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TITLE
JOURNAL
MEDLINE
REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE
JOURNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       REFERENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AUTHORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PEATURES
                                  셤
                                                                           õ
                                                                                                                ద
                                                                                                                                                       ò
                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
```

Search completed: January 16, 2002, 23:40:44 Job time: 9761 sec

```
tggtctgctgcggacgccactcctgcggcagagacccgagtggctcccagcagtcggcga 1018
                                         358
                                                              265
                                                                                   418
                                                                                                                           478
                                                                                                       325
                                                                                                                                               385
                                                                                                                                                                   538
                                                                                                                                                                                       445
                                                                                                                                                                                                            598
                                                                                                                                                                                                                                505
                                                                                                                                                                                                                                                    658
                                                                                                                                                                                                                                                               718
                                                                                                                                                                                                                                                                                                                                                                           613
                                                                                                                                                                                                                                                                                                                                    cgcgtcycaagccgcgctcgctggcttgctgcgcacgctcagcgtggtgctcctggcct 778
                                                                                                                                                                                                                                                                                                                                                          673
                                                                                                                                                                                                                                                                                                                                                                                                                                899 ttctgaacccatcatctacacgctcaccaaccgcgacctgcgccacgcgttcttgcc 958
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TCATGTCCTGCTGCAAATGCCCCAGTGGAGACTCCGCGGGCAAGGTCAAGCGCCCCATCA 913
                                                                                                                                                                 599 cettcgtgggcatectggccgctatetgtgcaetetacgcgcgcatetaetgccaggtae
                                                       659 gegecaaegegegegeetgeeggeaeggeeegggaetgegggaeeaetegaeeeggg
                                                                                                                                                                                                                                                                                                              566 GGACICGGAGCCGCAGGCIGACCTICCG-----CAAGAACGCCTCCAAGGCCA
         326 TGAAGCTGCACAACGGAAGCAACAGCTTCCGCTCCTTCTTGCTCATCAGCGCCTGCTGGG
                                                                                                                                                                                                         539 acgottyctccactgtcttgccgctctacgccaaggcctacgtgctcttctgcgtgctcg
                                                                                                                                                                                                                      ctgcgtccgtgctgagcctcctggccatcgcgctggagcgcagcctcaccatggcgcgca
                                                                                                                         gggggcccgccgtctccagtcgggggcgcacgctggcgatggcagccgcgggcctggg
                                                                                                                                                                                                                                                                                                                                                                                                                   839 gcacctgtcctgtactcctgcaggccgatcccttgggactggccatggccaactcac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          614 GCCGCAGCTCTGAGAAGTCGCTGCCTGCTCAAGACGGTGATCATCGTTCTGAGCGCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gegeggetgaggetteeggggge 1041
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TCCCGGGCGTGGAATTCAGCCGC 936
                   146
                                                                                                                          419
                                       299
                                                                                 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        854
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1019
                                      à
                                                          셤
ö
                                                                                                   g
                                                                                                                         ö
                                                                                                                                           g
                                                                                 ç
                                                                                                                                                                à
                                                                                                                                                                                   g
                                                                                                                                                                                                          à
                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                           å
                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                       요
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
```

Page 1

28 64.8 5.4 1776 1 US 29 64 5.3 639 3 US 31 63 5.3 2580 3 US 63 5.3 2680 3 US 63 5.3 9600 4 US 63 5.3 10596 1 US	63 5.3 10596 1 63 5.3 10596 1 63 5.3 10596 2 63 5.3 10596 2	38 63 5.3 10596 5 39 62.2 5.2 1296 1 40 62.2 5.2 1296 1 41 59.4 5.0 2126 2	59.4 5.0 2126 3 59.4 5.0 2126 3 59.4 5.0 2126 3	58.4 4.9 1394 2		RESULT 1	US-08-196-989B-3 ; Sequence 3, Application US/081969 ; Patent No. 5585476 ; GEMERAL INFORMATION:	APPLICANT: MacLennan, A. John TITLE OF INVENTION: Molecular TITLE OF INVENTION: G-Protein NUMBER OF SEQUENCES: 14 CORRESPONDENCE ADDRESS: ADDRESSEE: Saliwanchik & Sa STREET: 2421 N.W. 41st Street CITY: Gainesville	STATE: FL COUNTRY: US COUNTRY: US 1 ZIP: 3266 COMPUTTER PERDARIE FORM.	COMPUTER: IBM PC compatible	CUFERATING SYSTEM: PC-DOS/MS SOFTWARE: Patentin Release CURRENT APPLICATION DATA:	; APPLICATION NUMBER: US/08/1; FILING DATE: 15-FEB-1994; CLASSIFICATION: 536	; ATTORNEY/AGENT INFORMATION:	REGISTRATION NUMBER: 35,589	TELECOMMOTICATION INFORMATION: TELEPHONE: 904-375-8100	SEQUENCE CHARACTERISTICS:	; LENGTH: 2232 base pairs ; TYPE: nucleic acid	STRANDEDNESS: single ; TOPOLOGY: 11near	YPE	CDS	; LOCATION: 2691420 US-08-196-989B-3	Ouery Match 21.9%; So Best Local Similarity 56,4%; Py	; Conservative (teatestasas	
GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd. OM nucleic - nucleic search, using sw model	<pre>Run on: January 16, 2002, 21:03:03 ; Search time 69.25 Seconds (without alignments) 3914.717 Million cell updates/sec</pre>	Title: US-09-842-316-1 Perfect score: 1197 Sequence: 1 atggagtcggggctgctgcgcagaaccggctgcagactga 1197	Scoring table: IDENTITY_NUC Gapop 10.0 , Gapext 1.0	earched: 351203 seqs, 113238999 residues	otal number of hits satisfying chosen parameters: 702406	Minimum DB seq length: 0 Maximum DB seq length: 200000000	Post-processing: Minimum Match 10% Maximum Match 100% Listing first 45 summaries	Database: Issued_Patents_NA:* 1: /cgn2_6/ptcdata/2/lna/5A_COMB.seq:* 2: /cgn2_6/ptcdata/2/lna/5B_COMB.seq:* 3: /cgn2_6/ptcdata/2/lna/6B_COMB.seq:* 4: /cgn2_6/ptcdata/2/lna/6B_COMB.seq:* 5: /cgn2_6/ptcdata/2/lna/PCTUG.COMB.seq:* 6: /cgn2_6/ptcdata/2/lna/pcTUG.comB.seq:*	Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.		core	261.6 21.9 2232 1 US-08-196-989B-3 Sequence 3, 246.6 21.9 2232 2 US-08-760-936-3 Sequence 3,	246.4 20.8 113/ 3 US-09-082-088-1 Sequence 1, 244 20.4 1637 3 US-08-852-824-3 Sequence 3, 27 4 10 144 2 115-718-856-2	206.6 17.3 2754 1 US-08-196-989B-1 Sequence 206.6 17.3 2754 2 US-08-786-9858-1 Sequence	8 148.6 12.4 1260 3 US-08-789-982-1 Sequence 1, 137.8 11.5 1761 3 US-08-861-747-1 Sequence 1,	137.8 11.5 1889 3 US-08-861-747-3 Sequence 3, US-08-861-747-3 Sequence 3, US-08-861-763-938-1 Sequence 1,	3 90 7.5 2185 2 US-08467-948R-3 Sequence 4 90 7.5 1185 3 US-08-467-948R-3 Sequence	5 67.6 5.6 1417 4 US-09-737-3 Sequence 3,	7 67 5.6 1356 3 US-09-325-897-1 Sequence 1,	8 67 5.6 1523 3 US-08-997-803-12 Sequence 12, 9 66.4 5.5 1621 1 US-08-722-001-13 Sequence 13,	0 66.4 5.5 2140 1 US-08-334-698-1 Sequence	equence 1, equence 1, equence 1,	6 66.4 5,5 2140 3 7 66.4 5.5 2140 5	

```
29 64 6 5.4 177 G 0.997 60.2 0.997 60.2 0.997 60.2 0.997 60.2 0.997 60.2 0.997 60.2 0.997 60.2 0.997 60.2 0.997 60.2 0.997 60.2 0.997 60.2 0.997 60.2 0.997 60.2 0.997 60.2 0.997 60.2 0.997 60.2 0.997 60.2 0.997 60.2 0.997 60.2 0.997 60.2 0.997 60.2 0.997 60.2 0.997 60.2 0.997 60.2 0.997 60.2 0.997 60.2 0.997 60.2 0.997 60.2 0.997 60.2 0.997 60.2 0.997 60.2 0.997 7.997 1.997 7.997 60.2 0.997 7.997 1.997 7.997 60.2 0.997 7.997 1.997 7.997 60.2 0.997 7.997 1.997 7.997 1.997 7.997 60.2 0.997 7.997 1.997 7.997 1.997 7.997 1.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997 7.997
```

Lloyd & Saliwanchik

ADDRESSEE: Saliwanchik, Lloyd & Saliwanci STREET: 2421 N.W. 41st Street, Suite A-1 CITY: Gainesville

32606

COUNTRY: CITY: STATE:

CORRESPONDENCE ADDRESS

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPPERATUS SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/760,936
FILING DATE: December 6; 1996
CLASSIFICATION: 536

ATTORNEY AGENT INFORMATION:
NAME: Pace, Doran R.
REGISTRATION NUMBER: 38,261
REFERENCE/DOCKET NUMBER: MAC-100C1
TELECOMMUNICATION INFORMATION:
TELEPHONE: 352-375-8100

```
-- CAAGAACATCTCCAAGGCCAGCGCGCGGTTCCGAGAAGTCTCTGGCCTTGCTGAAGACA 1042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1103 TTAGATGTGGGGTGCAAGGCGAAGACCTGTGACATCCTGTACAAAGCAGAGTACTTCCTG 1162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1163 GTTCTGGCTGTGCTGAACTCAGGTACCAACCCCATCTTCTACACTGACCAATAAGGAG 1222
                                                                                                                                                                                                                                                                                                                                                                                                       516
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gagaatctagccgtgttggttggtgctcggacgccacccgcgcttccacgctcccatgttc 216
                                                                                                                                                                                            574
                                                                                                                                                                                                                                                                                  ggaggegtettegtggeacteactgegteegtgetgageeteetggeeategegetggag 396
                                                                                                                                                                                                                                                                                                                694
                                                                                                                                                                                                                                                                                                                                             tacgtgctcttctgcgtgctcgccttcgtgggcatcctggccgctatctgtgcactctac 636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  637 gegegeatctactgecaggtacgegecaacgegegegegeetgeeggeaeggeeegggact 696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ctcgacgtggcgtgcccggcgcacctgtcctgtactcctgcaggccgatcccttcctg 876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ggactggccatggccaactcacttctgaaccccatcatctacacgctcaccaaccgcgac 936
                                                                         454
                                                                                                                                                                                                                                                     575 CIGCIGITGICIGGGCCCACCACCIACAAGCICACACCIGCCCAGIGGIIICIGCGGGAA 634
                                                                                                                                                                                                                                                                                                                                                               atcctactgtcggggcgctcacgctgaaactgtcccccgcgctctggttcgcacgggag
                                                                                                                                                                                                                                                                                                                                                                                                       9cgatggcagccqcgggcctggggcgtgtcgctgccccggggctcctgccagcgctgggc
                                                              GGAAGTATGTTTGTGGCTCTGTCTCGGTCTTCAGCCTCCTTGCTATCGCCATTGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   757 ctcagogtggtgctcctggcctttgtgtggaatgttggggcccctcttcctgctgctgttg
                                           ggtgccggcctgcgacgccgtggtgtgcctggcggtgtgcgccttcatcgtgcta
                                                                                                                               455 GAGAATATATTTGTCTTGCTAACTATTTGGAAAACCAAGAAGTTCCACCGGCCCATGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                 tggaattgcctgggtcgcctggacgcttgctccactgtcttgccgctctacgccaaggcc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         935 TGCAGGATCTACTCCTTGCTGAGGACTCGAAGCCGCCGCCTGACCTTCCG------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1223 AIGCGCCGGGCCTICAICAGGAICAIAICTIGIAAAIGCCCCAACGG 1272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                937 ctgcgccacgcgctcctgcgcctggtctgcggacgccactcctgcgg 986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               817
                                          97
                                                                      395
                                                                                                    157
                                                                                                                                                                                                                       277
                                                                                                                                                                                                                                                                                 337
                                                                                                                                                                                                                                                                                                             635
                                                                                                                                                                                                                                                                                                                                           397
                                                                                                                                                                                                                                                                                                                                                                       695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        985
                                                                                                                                                                                                                                                                                                                                                                                                       457
                                                                                                                                                                                                                                                                                                                                                                                                                                                              517
            ద
                                        ò
                                                                   윱
                                                                                                  ò
                                                                                                                               셤
                                                                                                                                                             à
                                                                                                                                                                                      셤
                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                               å
                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
```

3

Gaps

15;

Length 2232; Indels

Query Match 21.9%; Score 261.6; DB 2; Best Local Similarity 56.4%; Pred. No. 1.7e-40; Matches 536; Conservative 0; Mismatches 399;

TOPOLOGY: linear MOLECULE TYPE: DNA (genomic)

CDS 269..1420

; NAME/KEY; ; LOCATION: US-08-760-936-3

single

STRANDEDNESS

INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS: LENGTH: 2232 base pairs TYPE: nucleic acid

352-372-5800

```
97 ggtgccggccggcggcggcgtggtgtgcctggcggtgtgcgccttcatcgtgcta 156
                                                                                                                                                                                                                        277 atcetactgtcggggccgctcacgctgaaactgtcccccgcgctctggttcgcacggaag 336
                                                                                                                                                                                                                                                                                                                                                                           gegatggcagccgcgggcctggggcgtgtcgctgctcctggggctcctgccagcgctgggc 516
                         gagaatctagccgtgttgttggtgctcggacgccacccgcttccacgctcccatgttc 216
                                                                                                                                                                                        455 GAGAATATATTTGTCTTGCTAACTATTTGGAAAACCAAGAAGTTCCACCGGCCCATGTAC 514
                                                                                                                                                                                                                                                                                                                                     575 crecrerrereredeseccaccaceracaascreacereceasereseresesesa 634
                                                                                                                                                                                                                                                                                                                                                                                                                                                      cycaycotcaccatygogogogogygyocogogocogtotocaytoyyyygygogogoty 456
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       tggaattgcctgggtcgcctggacgcttgctccactgtcttgccgctctacgccaaggcc 576
                                                                                                             395 GACCATGGCATTAAACTGACTTCAGTGGTGTTCATTCTCATCTGCTGCTTGATCATCCTA 454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               37 gaggteategtectgeattacaactacaceggeaageteegeggtgegegetaceageeg 96
                                                                                                                                                                                                                                                    CGCTACATCACCATGCTGAAGATGAAACTACACAACGGCAGCAACAGCTCGCGCTCCTTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                  397
                                                                                                                                                    157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             457
   ö
                                     유
                                                                                                           g
                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                           à
                                                                                                                                                    à
                                                                                                                                                                                        ద
                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                 g
```

Sequence 3, Application US/08760936
Patent No. 585643
Patent LineDawarlow:
APPLICANT: MacLennan, A. John.
TITLE OF INVENTION: Molecular Cloning and Expression of TITLE OF INVENTION: G-Protein Coupled Receptors NUMBER OF SAGUENCES: 14

US-08-760-936-3

us-09-842-316-1.rni

CDNA

```
985 --CAAGAACATCTCCCAAGGCCAGCCGCAGTTCCGAGAAGTCTCTGGCCTTGCTGAAGACA 1042
                                                                                                                                                                                                                                                                                                    757 ctcagcgtggtgctcctggcctttgtgggcatgttggggccccctcttcctgctgctgttg 816
                                                                                                                                                                                                                                                                                                                                                                                                                                         936
                                                       577 tacgigotottotgogigotogoottogigggoalootggoogotalotgigoactotae 636
                                                                                         875 TATATICICITCIGCACCACCGICTICACCCIGCICCIGCITICCATCGICATCCICTAC 934
                                                                                                                                                                                                       697 geggggaccacctegaccegggegegtegcaageegegetegeteggettgetgegeaeg 756
637 gcgcgcatctactgccaggtacgcgacaacgcgcggcgcctgccggcacggcccgggact
                                                                                                                                                       935 TGCAGGATCTACTCCTTGGTGAGGACTGGAAGCCGCCGCCCTGACCTTCCG-----
                                                                                                                                                                                                                                                                                                                                                          ctcgacgtggcgtgcccggcgcgcctgtcctgtactcctgcaggccgatcccttcctg
                                                                                                                                                                                                                                                                                                                                                                                                                                      ggactggccatggccaactcacttctgaaccccatcatctacacgctcaccaaccgcgac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1223 Argcgcccgcgccrrcarcagarcararcrrgrrgcaaargccccaacgc 1272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           937 ctgcgccacgcgctcctgcgcctggtctgctgcggacgccactcctgcgg 986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SYSTEM: DOS
FastSEQ for Windows Version 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER: GP-70453
TELECOMMUNICATION INFORMATION:
TELEPHONE: 610-407-0700
TELEFAX: 610-407-0701
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/082,088
FILING DATE: 20-MAY-1998
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 3
US-09-082-088-1
| Sequence 1, Application US/09082088
| Patent No. 6130067
| GENERAL INFORMATION:
| APPLICANT: TSUT, PING
| TITLE OF INVENTION: HUMAN EDG38b
| NUMBER OF SEQUENCES: 2
| CORRESPONDENCE ADDRESS:
| ADDRESSEE: Rather & Prestia |
| STREET: P.O. Box 980
| CITY: Valley Forge
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EDG3sb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Prestia, Paul F
REGISTRATION NUMBER: 23,031
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM COMPATIBLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INFORMATION FOR SEQ ID NO: .1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
LENGTH: 1137 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION DATA: APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      19482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY:
                                                                                                                                                                                                                                                                                                                                                          817
                                                                                                                                                                                                                                                                                                                                                                                                                                    877
                 පු
                                                     ò
                                                                                       8
                                                                                                                                                                                                                                                                                                                  g
                                                                                                                               ö
                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                          요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ద
                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
```

```
GGAAGTIGGCGGCAGGCTGAAGGAGGCCTCCGAGGGCAGCACGCTCACCACCGTGCTCT 136
                                                                                                                                                                                                                                                                                 137 TCTTGGTCATCTGCAGCTTCATCGTCTTGGAGAACCTGATGGTTTTGATTGCCATCTGGA 196
                                                                                                                                                                                                                                                                                                                                    gccaccgcgcttccacgctcccatgttcctgctcctgggcagcctcacgttgtcggatc 247
                                                                                                                                                                                                                                                                                                                                                                                                                       377 CCTGCAGCTTACTGGCCATCGCCATCGAGGGCCACTTGACAATGATCAAAATGAGGCCTT 436
                                                                                                                                                                                                  gcaagciccgcggtgcgcgctaccagccgggtgccggcctgcgcggcggcgtggtgt 127
                                                                                                                                                                                                                                                                   gootggoggtgtgtgcgcottcatcgtgctagagatctagccgtgttgttggtgctcggac 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    437 ACGACGICAACAAGAGGCACCGCGTCTTCCTCGTGATCGGGATGTGCTGGCTCATTGCCT 496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9/9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           556
                                                                                                                                                                                                                                                                                                                                                                                                      tgctgg;aggcgccgcctacgccgaccatcctactgtcggggccgctcacgctgaaac 307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       508 gcatco:ggccgctatctgtgcactctacgcgcgcatctactgccaggtacgccaacg 667
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        668 cycyycycctyccyycacygcccyygactycyyygaccactcyacccyygcycytcyca 727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         728 agccgcgctcgctggccttgctgcgcacgctcagcgtggtgctcctggcctttgtggcat 787
                                                                                                                                                      716 ------redecacrecrecedaccerearrerereacerericarcecer 763
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              764 GCTGGTCCCCACTCTTCATCCTCTTCATGATGTGCCTGCAGGGTGCAGGCGTGCC 823
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            848 ctgtactcctgcaggccgatcccttcctgggactggccatggccaactcacttctgaacc 907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             824 ccarccretreaaggereaggerearcererrescrerecreacearceccargaace 883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cggggctgctgcggccggcggtgagcgaggtcatcgtcctgcattacaactacaccg 67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ccatcatctacacgctcaccaaccgcgacctgcgccacgcgctcctgctggtctgct 967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     368 tgctgaycctcctggccatcgcgctggagcgcagcctcaccatggcgcgcagggggcccg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      488 tyctcctcgggctcctgccagcgctgggctggaattgcctgggtcgcctggacgcttgct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           197 AAAACAATAAATTTCACAACCGCATGTACTTTTTCATTGGCAACCTGGCTCTCTGCGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       548 ceactgrettgeegetetacgeeaaggeetacgtgetetgegtgetegeettegtgg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            33;
                                                                    Length 1137;
                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           677 GCCGTANGGTGGCCAACCACAACAACTCGGAGCGGTCCA------
                                                                    Score 248.4; DB 3;
Pred. No. 4.6e-38;
0; Mismatches 401;
                                                                   20.8%;
55.1%;
                                                             Query Match
Best Local Similarity 55.1%
Matches 532; Conservative
; MOLECULE TYPE:
US-09-082-088-1
                                                                                                                                                                                                   68
                                                                                                                                                                                                                                 11
                                                                                                                                                                                                                                                                   128
                                                                                                                                                                                                                                                                                                                                    188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      128
                                                                                                                                                                                                                                                                                                                                                                                                    248
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 806
                                                                                                                                  ö
                                                                                                                                                                g
                                                                                                                                                                                                à
                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                               đ
                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                     윰
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           සු
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
```

gcggac 973

968

ö

```
tgcggacgccactcctgcggcagagcccgagtggctcccagcagtcggcgagcgcgct 1026
                                                                                                                                                                                                                                                                                                                                                                                            1019 tgcyggtgtctcccggctgggcatgcgagggcccggggactgcctggcccgggccgtcgag 1078
                                                                                                                                                                                                                                                                                                                                                                                                                                                              1079 gctcactccggagcttccaccaccgacagctctctgaggccaagggacagctttcgcggc 1138
                                                                                                                                                     ccgicgctcgcttgcttgctgcgcacgctcagcgtggtgctcctggcctttgtggcatgt 789
                                                                                                                   785 gcccgccgcc----tgctgaagacggtgctgatgatcctgctggccttcttggtgtgc 838
                                                                                                                                                                                                                                             cccatcatctacacgctcaccaaccgcgacctgcgccacgcgctcctgcgcctggtctgc 966
                                                                                                                                                                                                                                                                                                                                                                                                                          1027 gaggetteeggggggetgeggetgeetgeeeeggggeettgatgggagetteagegg
                       cggcgcctgccggcacgggactgcggggaccacctcgacccgggcgcgtcgcaag
                                                         ......ggccccacgcccagcgccgccgcaag
                                                                                                                                                                                                                         gtactcctgcaggccgatccct...tcctgggactggccatggccaactcacttctgaac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: DISKette
COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTWARE: FESTERE OF WINDOWS Version 2.0
CURRENT APPLICATION NUMBER: US/08/845,566
FILING DATE: Filed Herewith
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADDRESSEE: Incyte Pharmaceuticals, Inc. STREET: 3174 Porter Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Au-Young, Janice
APPLICANT: Guegler, Karl
TITLE OF INVENTION: EDG-1 LIKE RECEPTOR
NUMBER OF SEQUENCES: 3
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 2, Application US/08845565
Patent No. 5912144
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTORNEY AGENT INFORMATION:
NAME: Billings, Lucy J.
REGISTRATION NUMBER: 36,749
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     REFERENCE/DOCKET NUMBER: PF
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-855-0555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEFAX: 415-845-4166
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 1649 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STREET: 31/4 FOR
                                                     cagaa----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: nucle:
STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ||
tc 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1087 tc 1088
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COUNTRY:
ZIP: 9430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RESULT 5
US-08-845-566-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STATE:
                     670
                                                     752
                                                                                                                                                                                                                         850
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1139
                                                                                                                                                                                                                                                                                         907
                                                   셤
                                                                                                                  셤
                                                                                                                                                     ò
                                                                                                                                                                                                                         å
                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              490 ctcctcgggctcctgccagcgctgggatggattgcctgggtcgcctggacgcttgctcc 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          73 ctccgcggtgcgcgctaccagccgggtgccggcctgcggcggcgacgccgtggtgtgcctg 132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         133 geggtgtgggccttcatogtgctagagaatctagccqtgttgttggtgctcggacgccac 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       212 geogecagetgeetggtggtgetggagaaettgetggtgetggeggeeateaceagecae 271
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           253 gcaggegecgectaegecgecaacatectaetgtegggeegeteaegetgaaaetgtee 312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 452 agectgetetteactgeagggttgegetttgeeacatggtgeggeeggtggeegagage 511
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   692 gtcctgg/ccaccatcatgggcctctatggggccatcttccgcctggtgcaggccagcggg 751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       13 ctgctgcggccggcggtgagcgaggtcatcgtcctgcattacaactacaccggcaag 72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         152 ctggccgggcgcgggggccggaggatggcggcctgggggccctgcgggggctgtcggtg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             373 agectectggceategegetggagegeagecteaceatggegegeaggggeeee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   433 ---gtetecagtegggggggeaegetggegatggeageegggegtgggggggtgtegetg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            572 ctgctggggatgctgcctttgctgggctggaactgcctgtgcgcctttgaccgctgctcc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            39;
                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 20.4%; Score 244; DB 3; Length 1637; Best Local Similarity 54.8%; Pred. No. 3e-37; Matches 593; Conservative 0; Mismatches 450; Indels 3
                                                                                                                            GENERAL INFORMATION:
APPLICANT: L1 et al.
TITLE OF INVENTION:
FILE REFERENCE: 1488.1220000
CURRENT APPLICATION NUMBER: US/08/852,824C
CURRENT FILING DATE: 1997-05-04
NUMBER OF SEQ ID NOS: 18
SOFTWARE: PALENTIN Ver. 2.0
                                                                                                  Sequence 3, Application US/08852824C Patent No. 6060272
                                                                                                                                                                                                                                                                                                                                                    ; NAME/KEY: CDS
; LOCATION: (50)..(1201)
US-08-852-824-3
                                                                                                                                                                                                                                                                                                                  ORGANISM: genomic
944 ACTGCC 949
                                                                                                                                                                                                                                                                  SEQ ID NO 3
LENGTH: 1637.
TYPE: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             313
              윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
```

us-09-842-316-1.rni

ខ

```
STRANDEDNESS:
                                                                                                                                                                   RESULT 6
US-08-196-989B-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-08-196-989B-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 395 (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ά
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    73 ctccgcggtgcgcgctaccagccgggtgccggcctgcgcgccgacgccgtggtgtgtgctg 132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   geggtgtgtgcgccttcatcgtgctagagatctagccgtgttgttggtgctcggacgccac 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         193 ccgcgcttccacgctcccatgttcctgctcctgggcagcctcacgttgtcggatctgctg 252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CCCGCGCCtCtggttCgcacgggaggaggaggcgtcttcgtggcactcactgcgtccgtgctg 372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      610 atcctggccgctatctgtgcactctacgcgcgcatctactgccaggtacgcgcaacgcg 669
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CIGGCCGGGGGGGGGGGGGGGGGGGGCCTGGGGGGCCCTGCGGGGGCTGTCGGTN 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           232 ATGCGGTCGCGACGCTGGTCTACTATTGCCTGGTGAACATCACGCTGAGTGACCTGCTC 291
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       gcaggcgccgcctacgccaacatcctactgtcggggccgctcacgctgaaactgtcc 312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           352 cccccccccccrccracegasesccrccrcrrcacceccrccccccccrcc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            373 agectectggceategegetggagegeateaceteaceatggegeaggggeeeggegee 432
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          412 AGCCTGCTCTTCACTGCAGGGAGCGCTTTGCCACCATGGTGCGGCCGGTGGCCGAGAGC 471
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   550 actgicitigocgototacgocaaggocitacgigoticitotgogigotocitogigggo 609
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             592 AGCCTTCTGCCCCTCTACTCCAAGCGCTACATCCTCTTCTGCCTGGTGATCTTCGCCGGC 651
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       652 GTCCTGGCCACCATCATGGGCCTCTATGGGGCCATCTTCCGCCTGGTGCAGGCGGG 711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               730 ccgcgctcgctggcctgctgcgcacgctcagcgtggtgctcctggccttgtggcatgt 789
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  790 tggggcccctttc-ctgctgctgttgctcgacgtggcgtgcccggcgcgcacctgtcc 848
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ------AGAAGGCCCCACGCCCAGGGCCCGCCGCAAG 744
                                                                                                                                                                                                                                                                                                                                                                                                                              ctgctgcggccggcggcggtgagcgaggtcatcgtcctgcattacaactacaccggcaag 72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         670 cggcgcctgccggcacggcccgggactgcggggaccacctcgacccgggcgcgtcgcaag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   799 resescentrices secreticas constructions and a resescent an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        849 tgtactcctgcaggcc---gatcccttcctgggactggccatggccaactcacttctgaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          859 GAGTACCTGCGGGCATGGACTGGATCCTGGCCCTGGCCGTCAACTCGGCGGTCAA
                                                                                                                                                                                                                                                                                                                                                            40;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cccatcatctacacgctcaccaacagcgacctgcgccacgcgctctgcgcct 959
                                                                                                                                                                                                                                                                                              Length 1649;
                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                    Score 227.4; DB 2;
Pred. No. 3.4e-34;
0; Mismatches 374;
                                                                                                                                                                                                                                                                                    19.0%;
56.6%;
                                                                                                                                                                                                                                                                         Ouery Match
Best Local Similarity 56.6°
Matches 540; Conservative
TOPOLOGY: 11nc...
IMBEDIATE SOURCE:
LIBRARY: TYMNOR01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              712 C-----
                                                                                                                                                 ; CLONE: 1
US-08-845-566-2
                                                                                                                                                                                                                                                                                                                                                                                                                      13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              112
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  906
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
```

```
tgtgcgccttcatcgtgctagagaatctagccgtgttgttggtgctcggacgccacccgc 196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          275 TATGCTGTGCCATCGTGGAGAACCTTCTGGTGCTAATCGCAGTGGCCAGGAACAGCA 334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           454
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        514
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   coagtogggggggcacgctggcgatggcagccgcgggcctggggcgtgtcgctgctcctcg 496
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           575 ACAAAAGCTGTCGAATGTTGATGCTCATTGGGGCCTCTTGGCTGATATCGCTGATTCTGG 634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            197 gcttccacgctcccatgttcctgctcctgggcagcctcacgttgtcggatctgctggcag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gegeegectaegecaecatectaetgteggggeegeteaegetgaaactgteeeeg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GCGTGGCCTTCGTGCCAACACCTTGCTCTCGGACCTGTCACCCTGTCCTTAACTCCCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         tootggccatcgcgctggagcgcatcaccatggcgcgcaggggggcccgccgtct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              515 TCCTGGCCATTGCCATCGAGAGACAAGTGGCCATCGCCAAGGTCAAGCTCTACGGCAGTG
919 CCCCATCATCTACTCCTTCCGCAGGAGGTGTGCAGAGCCGTGCTCAGCCT 972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17.3%; Score 206.6; DB 1; Length 2754;
llarity 54.9%; Pred. No. 2.3e-30;
Conservative 0; Mismatches 334; Indels 45;
                                                                                                                                                                GENERAL INFORMATION:
APPLICANT: MacLennan, A. John
TITLE OF INVENTION: Molecular Cloning and Expression of
TITLE OF INVENTION: G-protein Coupled Receptors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDIUM TYPE: Floppy disk
COMPUTER: IBW PC Compatible
OPBEATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURREWT APPLICATION DATA:
APPLICATION DATA:
APPLICATION NUMBER: US/08/196,989B
FILING DATE: 15 FEB-1994
                                                                                                                                                                                                                                                        NUMBER OF SEQUENCES: 14
CORRESPONDENCE ADDRESS:
ADDRESSE: Saliwanchik & Saliwanchik STREET: 2421 N.W. 41st Street, Sulte CITY: Gainesville
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        35,589
ER: MAC-100
                                                                                                                      Sequence 1, Application US/08196989B Patent No. 5585476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE/DOCKET NUMBER: MA
TELECOMMUNICATION INFORMATION:
TELEPHONE: 904-375-8100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOLECULE TYPE: DNA (genomic)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INFORMATION FOR SEQ ID NO: 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH: 2754 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     904-372-5800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Lloyd, Jeff
REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                            ZIP: 32606
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Ouery Match
Best Local Similarity
Matches 462; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
```

ø

ä

```
1010 ATACATGGCGTAGCCGGGACCTTCGGAGGGAGGTACTGAGGCCCCTGCTGTGCTGCGGGC 1069
                                                                    616
                                                                                                                                      929
                                                                                                                                                                                                                                                                         196
                                                                                                                                                                                                                                                                                                        889
                                                                                                                                                                                                                                                                                                                                                                   CGGCTTTTAGCATCCTTTAGACTCTACCTGTCCCGTCCGGGCCTGTCCTGTCTCT 949
                                                                                                                                                                                                                                                                                                                                                                                                     857 tgcaggccgatccettcctgggactggccatggccaactcacttctgaaccccatcatct 916
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         acacyctcaccaaccycyacctycyccacycyctctycycctyytctyctycygacycc 976
   814
                                                                                                                                                                                                     829
                                                                                                                                                                                                                                                                                                                                          856
                                     694
                                                                                                                                 617 ccgctatctgtgcactctacgcgcgcatctactgccaggtacgcgccaacgcgcggcgc
                                                                                                                                                          830 cácricacerecreasacastracarestracasestratas arcaseres
                                                                                                                                                                                                                                                                                                                                    635 GTGGCTTGCCCATCCTGGGCTGGAATTGTCTGGACCATCTGGAGGCTTGCTCCACTGTGC
                                                                  tgccgctctacgccaaggcctacgtgctcttctgcgtgctcgccttcgtgggcatcctgg
                                                                                                                                                                                                                                     cgctggccttgctgcgcacgctcagcgtggtgctcctggcctttgtgggcatgttggggcc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
APPLICANT: MacLennan, A. John
TITLE OF INVENTION: Molecular Cloning and Expression of
TITLE OF INVENTION: Molecular Cloning and Expression of
TITLE OF INVENTION: G-Protein Coupled Receptors
NUMBER OF SEQUENCES: 14
CORRESPONDENCE ADDRESS:
ADDRESSE: Saliwanchik, Lloyd & Saliwanchik
STREET: Saliwanchik, Lloyd & Saliwanchik
STREET: Gainesville
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OPERATING STATEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/760,936
FILING DATE: December 6, 1996
CLASSIFICATION: 536
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Pace, Doran R.
REGISTRATION NUMBER: 38.261
REFERENCE/DOCKET NUMBER: MAC-100C1
TELECOMUNICATION INFORMATION:
TELEPHONE: 352-375-6100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 1, Application US/08760936
Patent No. 5856443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: ISM PC compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           INFORMATION FOR SEQ ID NO: 1: SEQUENCE CHARACTERISTICS: LENGTH: 2754 base pairs TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            352-372-5800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    32606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1070 A 1070
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          977 a 977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 7
US-08-760-936-1
497
                                                                557
                                                                                                                                                                                                   677
                                                                                                                                                                                                                                    815
                                                                                                                                                                                                                                                                      737
                                                                                                                                                                                                                                                                                                                                      797
                                                                                                                                                                                                                                                                                                                                                                       890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         917
                            윱
                                                       õ
                                                                                         g
                                                                                                                                 à
                                                                                                                                                              g
                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                      å
                                                                                                                                                                                                                                                                                                                                                                                                     å
                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
```

```
256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1010 ATACATGGCGTAGCCGGGACCTTCGGAGGGAGGTACTGAGGCCCCTGCTGTGCTGGCGGC 1069
                                                                                                                                                                                                                                                                                                                                                        96gcogcctacgcogccaacatcctactgtcggggcggctcacgctgaaactgtccccg 316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             377 tectggccategegetggagegeagecteaceatggegegeagggggeeegegeetet 436
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              556
                                                                                                                                                                                                                                                                                                                  137 tgtgcgccttcatcgtgctagagaatctagccgtgttgttggtgctcggacgccaccgc 196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              616
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  883
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   856
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        acacyctcaccaaccycyacctgcyccacycyctcctycgcctgytctyctycgyacycc 976
                                                                                                                                                                                                                                                                                                                                                                                                                                         197 gettecaegeteceatgtteetgeteetgggeageeteaegttgteggatetgetggeag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         335 AGTICCACTCAGCCATGTACCTGTTCCTCGGCAACCTGGCAGCCTCCGACCTGCTGGCAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  515 TCTGGCCATTGCCATCGAGAGACAAGTGGCCATCGCCAAGGTCAAGCTCTACGGCAGTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     575 ACAAAAGCIGICGAAIGIIGAIGCICAIIGGGCCCICIIGGCIGAIAICGCIGAIICIGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ggctcctgccagcgctgggctggaattgcctgggtcgcctggacgcttgctccactgtct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  557 tgccgctctacgccaaggcctacgtgctcttctgcgtgctcgccttcgtgggcatcctgg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  617 ccgctatctgtgcactctacgcgcgcatctactgccaggtacgcgacaacgcggcgcgc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              tgccggcacggcccgggactgcgggaccacctcgacccgggcgcgtcgcaagccgcgct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   857 tgcaggccgatcccttcctgggactggccatggccaactcacttctgaaccccatcatct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             815 TIGCIGGT-----CCICAGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 coctgocottgoctgocacgotcagogtgotcoctggoctttgtggoatgttgggggoc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        830 cerrecerecreasasasas acareares as a consecret estate a consecret estate est
                                                                                                                                                                                           Length 2754;
                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                    Score 206.6; DB 2;
Pred. No. 2.3e-30;
0; Mismatches 334;
                       ; TOPOLOGY: linear
; MOLECULE TYPE: DNA (genomic)
US-08-760-936-1
                                                                                                                                                                                 Query Match
Best Local Similarity 54.9%;
Matches 462; Conservative
single
                                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a 977
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      890
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         497
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                677
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              737
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      977
                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
```

A 1070

1070

RESULT 8 US-08-789-982-1

```
722 GCC1GCTTGTCTTCCTGCTCATGGTGGCTGTACACCCGCATTTTCTTCTACGTGCGGC 781
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             782 tggcatgttggggcccctcttcctgctgttgctcgacgtggcgtgcccggcgca 841
                                                                                                                                                                                                                                                                                                                                                          662 GCTGCTCACGCATGGCACCCCTGCTCAGCCGCTCTATTTGGCCGTCTGGGCTCTGTCGA 721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       422 ggcccgcgcccgtctccagtcgggggcgcacgctggcgatggcagccgcgggcctggggcg
                                                                                                                                                    482 tgtogctgotcctogggctcctgcagcgttgggttggattgcctgggtcgcctggacg
                                                                                                                                                                                                                                                                                                         542 cttgctccactgtcttgccgctctacgccaaggcctacgtgctctgcgtgctcgcct
                                                                                                                                                                                                                                                                                                                                                                                                         602 togtgggcatcotggccgctatctgtgcactctacgcgcgcatctactgccaggtacgcg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             722 gtcgcaagccgcgctcgctggcttgctgcgcacgctcagcgtggtgctcctggcctttg
             362 egtecgtgetgageeteetggeeategegetggagegeageeteaceatggegegeaggg
                                                         482 CGICGGIGGCCACACIGCIGGCCAICGCCGIGGAGCGGCACCGCAGIGIGAIGGCCGIGC
                                                                                                                                                                                                                                                          602 CTGCCCTGGGCCTGCTGCTGCCTGCCACTCCTGGCACTGCCTCTGTGCCCTGGACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              837 ------CACGCTCAGCCTGGTCAAGACTGTTGTCATCCTGGGGGGGTTCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       842 cctgtcctgtactcctgcaggccgatcccttcctgggactggccatggccaactcacttc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            902 tgaaccccatcatctacacgctcaccaaccgcgacctgcgccacgcgctcctgcgcctgg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSER: Nikaido, Marmelstein, Murray & Oram LLP
STREET: 655 15th St., NW, Suite 330 - G Street Lobby
CITY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
APPLICANT: MUNROE, Donald G.
APPLICANT: VASA, Tejal B.
TITLE OF INVENTION: A HUMAN EDG-6 RECEPTOR HOMOLOG
NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS: ADDRESS: ADDRESS: ADDRESS: Nikaido, Marmelstein, Murray & Oram Li
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MORDING TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/861,747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           22-MAY-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 1, Application US/08861747
Patent No. 6020158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: Jahns, Kristina M. REGISTRATION NUMBER: 41,092
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1061 TCTGCTGCGCGTGCCTC 1077
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            962 tetgetgeggaegeeae 978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY: USA
21P: 20005-5701
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            JS-08-861-747-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    128 TCGAGATGGTCATCATGGGCCAGTGCTACTACAACGAGACCATCGGCTTCTTCTATAACA 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        122 tggtgtgcctggcggtgtgcgccttcatcgtgctagagaatctagccgtgttgttggtgc 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    182 toggacgecaccegegettecaegeteceatgtteetgeteetgggeageeteaegttgt 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     62 acaccggcaagctccgcggtgcgcgctaccagccgggtgccggcctgcgccggacgccg 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          242 cggatctgctggcaggcgcctacgccgccaacatcctactgtcggggccgctcacgc 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     422 CCCGACTITCACITGAGGGCIGGIICCIGGGGGGGGGGTTGCIGGACACAAAGCCICACIG 481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 362 creaccrerecesescrascrecrerererererescreences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 tggagtcggggctgctgcggccggcggtgagcgaggtcatcgtcctgcattacaact 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     242 CACTGGGGCTGACCGTCAGCGTGCTGCTGACCAATCTGCTGGTCATAGCAGCCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 3; Length 1260;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                         GENERAL INFORMATION:
APPLICANT: Sathe, Ganesh
APPLICANT: Bergsma, Derk
TITLE OF INVENTION: CDNA CLONE HERCH90 THAT ENCODES
TITLE OF INVENTION: A NOVEL 7- TRANSMEMBRANE RECEPTOR
NUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
ADDRESSEE: SmithKiine Beecham Corporation
STREET: 709 Swedeland Road
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 148.6; DB 3;
Pred. No. 1.1e-19;
0; Mismatches 459;
                                                                                                                                                                                                                                                                                                                                                                                                                                              OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ for Windows Version 2.0
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NAME: Han, William T
REGISTRATION NUMBER: 34,344
REFERENCE/DOCKET NUMBER: ATG50050
TELECOMMUNICATION INFORMATION:
TELEPHONE: 610-270-5219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/08/789,982
FILING DATE: 28-JAN-1997
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
Sequence 1, Application US/08789982
Patent No. 6037146
                                                                                                                                                                                                                                                                                                                      COUNTR.
2 IP: 19406
COMPITER READABLE FORM:
MEDIUM TYPE: Diskette
MEDIUM TYPE: Diskette
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ouery Match 12.4%;
Best Local Similarity 50.3%;
Matches 491; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     INFORMATION FOR SEQ ID NO: 3
SEQUENCE CHARACTERISTICS:
LENGTH: 1260 base pairs
                                                                                                                                                                                                                                                                  CITY: King of Prussia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEFAX: 610-270-4026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    linea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRANDEDNESS:
                                                                                                                                                                                                                                                                                                 STATE:
```

8 8 8

ద

õ

g

ò

ò

```
951 CTCACTGGTCAATGCTGTGTGTACTCTTGCCGAGATGCTGAGATGCGCCGCACCTTCCG 1010
                            ctbacttetgaaceceatcatetacaegeteaceaecgegaectgegeeaegegeteet 953
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     54 ttacaactacaccggcaagctccgcggtgcgcgctaccagccgggtgccggcctgcgcg 113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        218 Tricitataacaacagragaaaaagagcicaacragcragagagargigi 277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cgacgccgtggtgtgcctggcggtgtgcgccttcatcgtgctagagaatctagccgtgtt 173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   174 gtiggtgeteggaegeeacegegetteeacgeteeeatgtteetgeteetggeageet 233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Cacqttgtcggatctgctggcaggcgccgcctacgccgccaacatcctactgtcggggcc 293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GECCGCGGCTGACCTCTTCGCGGGCGTGGCCTACCTCTTCCTCATGTTCCACACTGGTCC 457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGCAGCCATCGCCTCCAACCGCCTTCCACCAGCCCATCTACTACTGCTCGGCAATCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             11.5%; Score 137.8; DB 3; Length 1889; ilarity 49.4%; Pred. No. 1.1e-17; Conservative 0; Mismatches 447; Indels 21;
                                                                                                                                                                                                                                                                                                                 APPLICANT: MUNROE, Donald G.
APLICANT: VYAS, Tejal B.
APLICANT: VYAS, Tejal B.
APLICANT: VAS, Tejal B.
AUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:
ADDRESSEE: ALKAIGO, MATMELSTEIN, MULTAY & OTAM LISTREET: 655 15th St., NW, Suite 330 - 6 Street Lo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                OPERAȚING SYSTEM: PC_DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATTORNEY AGENT INFORMATION:
NAME: Jahns, Kristina M.
REGISTATION NUMBER: 41,092
REPRENCE/DOCKET NUMBER: P8074-7003
TELECOMMUNICATION INFORMATION:
TELEFAX: (202) 638-5000
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US/08/861,747
FILING DATE: 22-MAY-1997
CLASSIFICATION: 536
                                                                                                                                   1011 ccsccrrcrcrcrccccccrc 1035
                                                                                                           954 gegeetggtetgetgeggaegeeae 978
                                                                                                                                                                                                                                                                                                                                                                                                                                       STREET: 655 15th St., NW, SUIT
CITY: Washington
STATE: DC
COUNTR: USA
ZIP: 20005-5701
COMPUTER READABLE FORM:
WEDIWY TYPE: Floppy disk
COMPUTER: IBM PC COMPALLIDE
COMPUTER: IBM PC COMPALLIDE
                                                                                                                                                                                                                                                       Sequence 3, Application US/08861747 Patent No. 6020158
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH: 1889 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; TOPOLOGY: linear
; MOLECULE TYPE: CDNA
US-08-861-747-3
                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Simil
Matches 457; C
                                                                                                                                                                                                                                    US-08-861-747-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 114
                            894
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     294
                                                                 셤
                                                                                                             à
                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     δ
                                                                                                                                                                                                                                                                                                                                         ñ
                                                                                                                                                                                                                                                                                                                                                                              54 ttacaactacaccggcaagctccgcggtgcgcgctaccagccgggtgccggcctgcgcg 113
                                                                                                                                                                                                                                                                                                                                                                                                                                                               cgacgccgtggtgtgcctggcggtgtgcgccttcatcgtgctagagaatctagccgtgtt 173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    192 ceregrescarcescercacercacerscrescerecrescerarcrescrescra 251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          312 GGCCGGGCTGACCTCTTCGCGGGCGTGGCCTACCTCTTCCTCATGTTCCACTGGTCC 371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  354 acteactgegtecegtgetgageetectggeeategegetggagegegeeteaceatgge 413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  474 ctggggggtgtcgctgctcctggggctcctgccagcgctgggctggaattgcctgggtcg 533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  594 gotogoottogtggggatcotgggcggctatctgtgcactctacggggggatctactgcca 653
                                                                                                                                                                                                                                                                                                                                                                                                                   132 TTTCTTCTATAACAACAGGGCAAAGAGCTCAGCTCCCACGGGGGGCCCAAGGATGTGGT 191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gogoagggggcccgccgtctccagtcggggggcgcacgctggcgatggcagccgcggc 473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        492 GGCCGTACAGTTGCACAGCCGCCTGCCCGTGGCCGTGGTCATGCTCATTGTGGGCGT 551
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cctggacgcttgctccactgtcttgccgctctacgccaaggcctacgtgctcttctgcgt 593
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ggtacgcgccaacgcgcgcgcctgccggcacggcccgggactgcggggaccacctcgac 713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     834 ggcgcgcacctgtcctgtactcctgcaggccgatcccttcctgggactggccatggccaa 893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              552 GTGGGTGGCTGCCCTGGGCCTGGGGCTGTTGCCTGCCCACTCCTGGCACTGCCTCTGTGC 611
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCTGGACCGCTGCTCACGCATGGCACCCTGCTCAGCCGCTCCTATTTGGCCGTCTGGGC 671
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               672 TCTGTCGAGCCTGCTTGTCTTCCTGCTCATGGTGGCTGTGTACACCCGCATTTTTTATA 731
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             732 CGTGCGGCGGCGAGTGCAGCGATGGCAGAGCAT ---- GTCAGCTGCCACCCCGGTAC 786
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ccgggcgcgtcgcaagccgcgctcgctggccttgctgcgcacgctcagcgtggtgctcct 773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              787 CGAG------AGACCACGCTCAGCCTGGTCAAGACTGTTGTCATCATCTGGG 833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           834 GCGTTCGTGCTCTGCTGGACACCAGGCCAGGTGGTACTGCTCCTGGATGGTTTAGGCTG 893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             234 cacgitgicggalcigciaggaggagacgactacgacgacaacaicciacigiaggac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      774 ggcctttgtggcatgttggggccccctcttcctgctgctgttgctcgacgtggcgtgccc
                                                                                                                                                                                                                                                                                                 Length 1761;
                                                                                                                                                                                                                                                                                             Score 137.8; DB 3; Length 1
Pred. No. 1.1e-17;
0; Mismatches 447; Indels
REFERENCE/DOCKET NUMBER: P807
TELECHONE: TELECHONE INFORMATION:
TELEPHONE: (202) 638-5000
TELEFAX: (202) 638-4810
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 1761 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
TOPOLOGY: linear
JOPOLOGY: linear
US-08-961-747-1
                                                                                                                                                                                                                                                                                           udery Match 11.5%;
Best Local Similarity 49.4%;
Matches 457; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   534
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           612
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       714
                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                   윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            윰
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           윱
```

ë.

397

```
545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         980 rGaG---rccrccaardrccrccrcraGaaaagracrrccracrerrgcccaagccaa 1036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1037 Crcaciggicanigcigcigistacicingcogagnigcigargogogococococoricog 1096
                                                                                                 518 cercaerecerceceaeaerecrescentesceresceresaacescaececaererear 577
                                                                                                                                               gcgcagggggcccgccgtctccagtcgggggcgcactggcgatggcagccgcggc 473
                                                                                                                                                                                                                                                                                                                 cctggacgcttgctccactgtcttgccgctctacgccaaggcctacgtgctcttctgcgt 593
                                                                                                                                                                                                                                                                                                                                                                                              594 gctcgccttcgtgggcatcctggccgctatctgtgcactctacgcgcgcatctactgcca 653
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        638 Grederecereceredeciredecrerrecereceaerereceredes 697
                                                                                                                                                                                                                                                                                                                                                      ccredaccecrecreacecarececrecrescececrecraringecereresec 757
                                                                                                                                                                                                                                                                                                                                                                                                                           654 ggtacgcgccaacgcgcgcgcctgccggcacggcccgggactgcggggaccacctcgac 713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ccgggcgcgtcgcaagccgcgctcgctggccttgctgcgcacgctcagcgtggtgctcct 773
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        873 CGAG------AGACCACGCTCAGCCTGGTCAAGACTGTTGTCATCATCCTGGG 919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  774 ggcctttgtggcatgttggggcccctcttcctgctgctgttgctcgacgtggcgtgcc 833
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GGCGTTCGTGGTCTGCTGGACACCAGGCCAGGTGGTACTGCTCCTGGATGGTTTAGGCTG 979
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   834 ggcgcgcacctgtcctgtactcctgcaggccgatcccttcctgggactggccatggccaa 893
354 acteactgegteegtgetgageeteetggeeategegetggagegeageeteaeeatgge
                                                                                                                                                                                   578 GCCGTACAGTTGCACAGCCGCCTGCCCCGTGCCGCGTGGTCATGCTCATTGTGGGCGT
                                                                                                                                                                                                                               ctggggcgtgtcgctgctcctcgggctcctgccagcgctgggattgcctgggtcg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   894 ctcacttctgaaccccatcatctacacgctcaccaaccgcgacctgcgccacgcgctcct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE: Nikaido, Marmelstein, Murray and Oram STREET: 655 15th Street, N.W., Suite 330 - G St. 1 STATE: DC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 1, Application US/08763938
Patent No. 6140060
GENERAL INFORMATION:
GENERAL INFORMATION:
APPLICANT: HECHT, Jonathan H.
TITLE OF INVENTION: RECEPTORS
NUMBER OF SEQUENCES:
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ZUGNATION OSA
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/WS-DOS
SOTWARE: PATENTIN Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/763,938
FILING DATE: 12-DEC-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT 11
US-08-763-938-1
                                                                                                                                                                                                                               474
                                                                                                                                                                                                                                                                                                                 534
                                                         à
                                                                                                   셤
                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                      쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
```

```
973 ATCGGGACACCATGATGAGCCTTCTGAAGACTGTGGTCATTGTGCTTGGTGCCTTTATTG 1032
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            033 TCTGCTGGACTCCGGGATTGGTCTTGTTGCTGGATGTGTGCTGCCCGCAG----T 1086
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            391 TGGGCATCACTGTTTGGGTGTTCATGTTGGCCCAATCTCCTGGTCATGGTGGCAATCT 450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            125 tgtgcctggcggtgtgcgccttcatcgtgctagagaatctagccgtgttgttggtggtgctcg 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cogogocogtotocagtoggggggggcacgotggcgatggcagccgggggcctgggggggtgt 484
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                931 GGACTATG-------AGGATGTCTCGGCATAGTTCTGGACCCAGGAGGA 972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 604
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  665 acgcgcgcgcctgccggcacggcccgggactgcggggaccacctcgacccgggcgcgtc 724
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gcaagccgcgctcgctggcctgccgcacgctcagcgtggtgctcctggcctttgtgg 784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      24; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gtcctgtactcctgcaggccgatcccttcctgggactggccatggccaactcacttctga 904
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         atctgctggcaggcgcctacgccgccaacatcctactgtcggggccgctcacgctga
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  511 ACTICTICGCTGGATTGGCCTACTTCTACCTGATGTTCAATACAGGACCTAATACCGGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     aactgicccccgcgcictggitcgcacgggagggaggcgicttcgiggcactcactgcgi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                571 GACTGACTGTTAGCACGTGGCTCCTCGGCGGGCCTCATTGACACCAGCCTGACACTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 365 cogigo:gagocicotygocatogogotygagogoagocicacoatygogogoayyygo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                691 TCCATACACGAATGAGCAACCGGCGCGTGGTGGTGATGTAGTCATCTGGACTATGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     811 GITCCAACATGGCACCCTCTACAGGACTCCTACTTAGTCTTCTGGGCCATTTTCAACC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      605 tgggcatcctggccgctatctgtgcactctacgcgcgcatctactgccaggtacgcgcca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cgctgctcctcggggctcctgccagcggtgggattgcctgggtcgcctggacgctt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gctccactgtcttgccgctctacgccaaggcctacgtgctcttctgcgtgctcgccttcg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         751 CCATTGTGATGGGTGCTATACCCAGTGTGGGCTGGAACTGCATCTGTGATATCGATCACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              785 catgitggggccccetcttcctgctgttgctcgacgtggcgtgcccggcgcgccct
                                                                                                                                                                                                                                                                                                                                                                                                                        Length 2250;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                Score 133.2; DB 3;
Pred. No. 7.7e-17;
0; Mismatches 408;
                                                               REFERENCE, DOCKET NUMBER: 910 JUNE REFERENCE, DOCKET NUMBER: 92 JUNE RELEPHONE: (202) 638-500 TELEFAX: (202) 638-4810 TELEFAX: (202) 638-4810 SEQUENCE CHARACTERISTICS: LENGTH: 2220 base pairs TYPE: nucleic cald STRANDEDNESS: single TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                              11.18;
ATTORNEY/AGENT INFORMATION:
NAME: JAHNS, Kristina M.
REGISTRATION NUMBER: 41,
                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity 49.4
Matches 422; Conservative
                                                                                                                                                                                                                                                                                             ; TOPOLOGY: 11near
; MOLECULE TYPE: CDNA
US-08-763-938-1
                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
```

```
961 TTGTGGTAATGGTGGTTCTCTATGCTCACATCTTTGGCTATGTTCGCCAGAGGACTATGA 1020
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1021 GAATG---------TCTCGGCATAGTTCTGGACCCCGGCGGAATCGGGTA 1062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1063 CCATGATGAGTCTTCTGAAGACTGTGGGTCATTGTGCTTGGGGGCTTTATCATCTGCTGGA 1122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1177 TGGCCTATGAGAAATTCTTCCTTCCTTGCTGAATTCAACTCTGCCATGAACCCCATCA 1236
                                                                                                                                                    tgyccgctatctgtgcactctacgcgcatctactgccaggtacgcgaccaacgcgcggc 673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     caygogcogcctacgccgaccatcctactgtcggggccgctcacgctgaaactgtccc 313
                                                                                                                                                                                                                                                                                      721 ACTTACTGGCTATTGCAATCGAGAGGCACATTACGGTTTTCCGCATGCAGCTCCACACAC 780
                                                                                                                                                                                                                                                                                                                                                                                781 GGATGAGCAACCGGCGGGTAGTGGTGGTCATTGTGGTCATCTGGACTATGGCCATCGTTA 840
                                                                                                                                                                                                                                                                                                                                                                                                                      494 togggetectgecagegetgggetggaattgeetgggtegeetggaegettgeteeaetg
                                                                                                                                                                                                                                                gcotcotggccatcgcgctggagcgcagcctcaccatggcgcgcaggggcccgcggcccg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       841 TGGGTGCTATACCCAGTGTGGGCTGGAACTGTATCTGTGATATTGAAAATTGTTCCAACA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          661 TINGCACATGGCTCCTTCGTCAGGCCTCATTGACACCAGCTGACGCCATCTGTGGCCA
                                                                                                                                                                                                                                                                                                                                   terceagtegggggggacgetggcgatggcagecgcggggctggggggtgtegetee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    tettgeegetetacgecaaggeetacgtgetettetgegtgetegeettegtgggeatee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          gctcgctggccttgctgcgcacgctcagogtggtgctcctggccttgtggcatgttggg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1123 CTCCTGGATTGGTTTTGTTACTTCTAGACGTGTGCTGTCCACAGTGCGAC-----GTGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      tectgeaggeegateeetteetgggaetggeeatggeeaacteaettetgaaceeeatea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: LI, YI
APPLICANT: CAO, LIANG
APPLICANT: GENTZ, REINER
APPLICANT: GENTZ, REINER
APPLICANT: BULT, CAROL J.
APPLICANT: SUTTON III, GRANGER G.
APPLICANT: ROSEN, CRAIG A.
TITLE OF INVENTION: POlynucleotides Encoding Human G-Protein
TITLE OF INVENTION: Coupled Receptor GPRZ
NUMBER OF SEQUENCES: 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS:
ADDRESSEE: STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 3, Application US/08467948A Patent No. 5998164 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1297 GC 1298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                974 gc 975
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT 13
US-08-467-948A-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    554
                                                                                                          601
                                                                                                                                                                                                                                                                                                                                   434
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           614
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          734
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                  ò
                                                                                                                                                    à
                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ;
                                        1147 ACCCCATCATCTCTACTCGTACAGAGATGAGGGCCACCTTCAGGCAGATCTGT 1206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  481 cretricrarcricarcargrideccaacciarrecreargrideceaarcrargreaacc 540
                  accocatcatctacacgctcaccaaccgcgacctgcgccacgcgctcctgcgcctggtct 964
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          134 cggtgtgcgccttcatcgtgctagagaatctagccgtgttgttggtgctcgggacgccacc 193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 194 egegeticeaegeteceatgtteetgeteetgggeageeteaegttgteggatetgetgg 253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 1875;
                                                                                                                                                                                                                                                                                                                  APPLICANT: Au-Young, Janice
APPLICANT: Bandman, Olga
APPLICANT: Sellhamer, Jeffrey J.
TITLE OF INVENTION: A NOVEL HUMAN EDG-2 RECEPTOR HOMOLOG
NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
ADDRESSEE: Incyte Pharmacon++**
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 98.8; DB 5; Length 1
Pred. No. 1.7e-10;
0; Mismatches 422; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADDRESSEE: Incyte Pharmaceuticals, Inc. STREET: 3174 Porter Drive CITY: Palo Alto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PF-0042 PCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: FastSEQ Version 1.5
CURRENT APPLICATION DATA.
APPLICATION NUMBER: PCT/US96/10618
FILING DATE: 20-JUN-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
APPLICATION NUMBER: 60/000,352
FILING DATE: 20-JUN-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08,567,817
FILING DATE: 06-DEC-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                              Sequence 1, Application PC/TUS9610618 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NAME: Glaister, Debra J.
REGISTRATION NUMBER: 33,888
REFERENCE/DOCKET NUMBER: PF-01
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-855-0555
TELEFAX: 415-845-4166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Rheumatoid Synovium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 : Diskette
IBM Compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ouery Match
Best Local Similarity 47.0%;
Matches 396; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS: LENGTH: 1875 base pairs
                                                                                                                                                1207 GTTGCCAGCGCAAC 1220
                                                                                                     965 gctgcggacgccac 978
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: nucleic acid
STRANDEDNESS: sing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       94304
                                                                                                                                                                                                                    RESULT 12
PCT-US96-10618-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PCT-US96-10618-1
                                                                                                                                                                                                                                                                                                    APPLICANT:
APPLICANT:
APPLICANT:
                905
                à
                                                                                                     ò
                                                                                                                                           8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
```

```
1629 TGGGGGCGTTCGTGGTCTGCTGGACACCAGGCCAGGTGGTACTGCTCCTGGATGGTTAG 1688
                                                                                                                                                                                                          1689 GCTGTGAG---TCCTGCAATGTCCTGGCGTTAGAAAGTACTTCCTACTGTTGGCCGAGC 1745
                                                                                                                                                                                                                                                                                                                                   770 tectggcetttgtggcatgttggggccccctcttcctgctgctgttgctcgacgtggcgt 829
                                                                                                                                                                                                                                                                                       890 ccaactcacttctgaaccccatcatctacacgctcaccaaccgcgacctgcgccacgcgc 949
                                                                                                                                               830 goocggogogoacctgtcctgtactcctgcaggcogatcccttcctgggactggccatgg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: LI, YI
APPLICANT: LI, YI
APPLICANT: CAO, LIANG
APPLICANT: GENZE, REINER
APPLICANT: BULT, CAROL J.
APPLICANT: SUTTON III, GRANGER G.
APPLICANT: ROSEN, CRAIG A.
TITLE OF INVENTION: Polynucleotides Encoding Human G-Protein
TITLE OF INVENTION: Coupled Receptor GPRI
CORRESPONDENCE: 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    E: STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SUFTWARE: PATENTIN RELEASE #1.0, VERSION #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/467,947A
FILING DATE: 06-JUN-1995
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION DATA:
RILING DATE:
APPLICATION DATA:
AP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1488.1140002/EKS/KLM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: PCT/US95/04079
FILING DATE: 30-MAR-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 3, Application US/08467947A Patent No. 6090575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELECOMMUNICATION INFORMATION TELEPHONE: 202-371-2600 TELEFAX: 202-371-2540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: STEFFE, ERIC K.
REGISTRATION NUMBER: 36,
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEFAX: 202-3/2
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1806 rcccccccrrcrc 1819
                                                                                                                                                                                                                                                                                                                                                                                                                                  950 tectgegeetggte 963
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: FLOPPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: nucleic acid
STRANDEDNESS: both
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TOPOLOGY: both
MOLECULE TYPE: CDNA
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WASHINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; LOCATION:
US-08-467-947A-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1287 reareccerecaderecadececececerececereceses respectations 1346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1167 Grecedechenecedaerrenenengaeriderrenecigenigeneeriggaen 1226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1467 GGCTCTGTCGAGCCTGCTTGTCTTCCTGCTCGTGGTGGTGTACACCCGCATTTTCT 1526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1347 GCGTGTGGGTGCTTGCCCTGGGGCTGCTGCTGCCTGCCCACTCCTGGCACTGCCTCT 1406
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  410 tggcgcaggaggcccgccgtctccagtcgggggcgcacgctggcgatggcagccg 469
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1527 TCTACGTGCGGCGGGGGGGGGCATG----GCAGAGCATGTCAGCTGCCACCCCG 1581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -----GACCACGCTCAGCCTGGTCAAGACTGTTGTCATCATCC 1628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      350 tggcactcactgcgtccqtgctgagcctcctggccatcgcgctggagcgcagcctcacca 409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         470 cggcctggggcgtgtcgctgctcctcggggctcctgccagcgctgggctggaattgcctgg 529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              650 gccaggtacgcccaacgcgcgcgcctgccggcacggcccgggactgcggggaccact 709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cgacccgggcgcgtcgcaagccgcgctcgctggccttgctgcgcacgctcagcgtggtgc 769
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  590 gegigetegeetiegigggeateeiggeegetaietgigeacteiaegegeateiaet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 2185;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 90; DB 2; Length 218
Pred. No. 6.9e-09;
0; Mismatches 320; Indels
                                                                                                                                                                                                                                                                                                     PATENTIN RELEASE #1.0, VERSION #1.30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1488.1140003/EKS/KLM
: 1100 NEW YORK AVE., NW, SUITE 600 WASHINGTON
                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/467,948A
FILING DATE: 06-JUN-1995
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/US95/04079
FILING DATE: 30-MAR-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                  MELLUM TYPE: FLOPPY DISK COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC-DOS/MS-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REGISTRATION NUMBER: 36,688
REFERENCE/DOCKET NUMBER: 14
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-2600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity 49.4%;
Matches 333; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEFAX: 202-371-2540
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: FLOPPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY: CDS
LOCATION: 884..2062
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: nucleic acid
STRANDEDNESS: both
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1582 CTACCGAGA-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY: both
                                                                                                   COUNTRY: USA
ZIP: 20005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  . LOCATION:
US-08-467-948A-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      710
```

8 ò ò

Score 90; DB 3; Length 2185; Pred. No. 6.9e-09; 7.5%; Query Match Best Local Similarity ö

```
ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Bard, Jonathan A.
APPLICANT: Bard, Jonathan A.
APPLICANT: Borowsky, Beth
APPLICANT: Smith, Kelli E.
APPLICANT: Smith, Kelli E.
APPLICANT: Gradd, Christophe P.G.
APPLICANT: Gradd, Christophe P.G.
APPLICANT: Gradd, Christophe P.G.
APPLICANT: OF INVENTION: DNA Encoding Galanin GALR3 Receptors And Uses Thereof CURRENT APPLICANTON: DNA Encoding Galanin GALR3 Receptors And Uses Thereof CURRENT APPLICATION NUMBER: US/09/199,737A
UMMBER OF SEQ ID NOS: 59
                                CAAACCTCACTGCGTCGGTGGCCACACTGCTGGCCATCGCCGTGGAGCGGCACCGCAGTG 1286
                                                                                                                                                                                                                       1346
                                                                                                                                                                                                                                                                                           1347 GCGTGTGGGTGCCTGCCCTGGGCCTGGTGCTGCCTGCCACTCCTGGCACTGCCTCT 1406
                                                                                                                                                                                                                                                                                                                                                                  Graccareaccarcarcaraccarecaraccaracarcacacararragecerra 1466
                                                                                                                                                                                                                                                                                                                                                                                                                                          GGGCICTGTCGAGCCTGCTTGTCTTCCTGCTCATGGTGGCTGTGTACACCCGCATTTTCT 1526
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1628
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          regegecerrecrecrecrecaceaccaeccaegrecrecrecrecrecresitae 1688
                                                                                                                                                                                                                                                            529
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1746 CAACCTCACTGGTCAATGCTGCTGTACTCTTGCCGAGATGCTGAGATGCGCCGCACCT 1805
                                                                                                            409
                                                                                                                                                                                    469
                                                                                                                                                                                                                                                                                                                                                                                                         649
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         169
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              829
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                gcccggcgcgcacctgtcctgtactcctgcaggccgatcccttcctgggactggccatgg 889
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 gocaggtacgcgaaacgcgcggcgcctgccggcacggcccgggactgcggggaccacct 709
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ccaactcacttctgaaccccatcatctacacgctcaccaaccgcgacctgcgccacgcgc 949
   Gaps
                                                                                                                                                                                                                                                        cggcctgggggtgtcgctcctcgggctcctgccagcgctggggtggattgcctg
                                                                                                          tggcactcactgcgtccgtgctgagcctcctggccatcgcgctggagcgcagcctcacca
                                                                                                                                                                                  tggcgcgcaggggcccgcccgtctccagtcggggggcgcacgctggcgatggcagccg
                                                                                                                                                                                                                   TGATGGCCGTGCAGCTGCCGCCTGCCCCGTGGCCGCGTGGTCATGCTCATTGTGG
                                                                                                                                                                                                                                                                                                                               gtcgcctggacgcttgctccactgtcttgccgctctacgccaaggcctacgtgctcttct
                                                                                                                                                                                                                                                                                                                                                                                                         gogtgotogocttogtgggcatoctggccgctatctgtgcactctacgcgccatctact
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1527 TCTACGTGGGGGGGGGGGGGGGATG----GCAGAGCATGTCAGCTGCCACCCCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cgacccgggcgcgtcgcaggcgctcgctggccttgctgcgcacgctcagcgtggtgc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTACCGAGA-----GACCACGCTCAGCCTGGTCAAGACTGTTGTCATCCTCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         tectggeetttgtggeatgttggggeeeeetetteetgetgetgetegaegtggegt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GCTGTGAG - - - TCCTGCAATGTCCTGGCGTTAGAAAAGTACTTCCTACTGTTGGCCGAGC
   21;
Mismatches 320; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 3, Application US/09199737A Patent No. 6287788 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SOFTWARE: Patentin Ver. 2.0 - beta
SEQ ID NO 3
LENGTH: 1417
 ö
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1806 TCCGCCGCTTCTC 1819
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA
ORGANISM: Homo saptens
US-09-159-737-3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                tcctgcgcctggtc
333;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT 15
US-09-199-737-3
 Matches
                                                                   1167
                                  290
                                                                                                                                                                                                                     1287
                                                                                                                                                                                                                                                                                                                                                                                                                                        1467
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1629
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1689
                                                                                                        350
                                                                                                                                             1227
                                                                                                                                                                                                                                                                                                                                                                  1407
                                                                                                                                                                                                                                                                                                                                                                                                       590
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               650
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           770
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                950
                                                                                                                                                                                  410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      890
                                  ð
                                                                 g
                                                                                                      ò
                                                                                                                                         셤
                                                                                                                                                                                  å
                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                        启
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   윱
                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
```

```
ggccgcttcgccttcagcccggccacctacgcctgccgcctggcctcacactgcctggcc 1017
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ttotgogtgotcgccttcgtgggcatcctggccgctatctgtgcactctacgcgcgcatc 645
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  886 atggccaactcacttctgaaccccatcatctacacgctcaccaaccgcgacctgcgccac 945
                                                                                                       598 googcagigggootggigiggoigcigooggogootottotoggogooctacotcagoiac 657
                                                                                                                                                                                 tacggcaccgtgcgctacggcgcgctggagctctgcgtgcccgcctgggaggacgcgcgc 717
                                                                                                                                                                                                                                                                                                                             778 agcctggcctacggggcgcacgctgcctgtgggccgccgtgggtcccgcggggcgcg 837
                                                                                                                                                                                                                                                                                                                                                                    765
                                                                                                                                                                                                                                                                                                                                                                                                        897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gegigeceggegeacetgicetgiaetectgeaggeegaicecticetgggaetggee 885
                                                                                                                                                                                                                                                                                            tactgccaggtacgccaacgcgcgcgcctgccggcacggcccgggactgcggggacc 705
                                                                                                                                                                                                                                                                                                                                                                                                                                         gigetectggeettigiggeatgitggggeeeeetetteetgetgetgttgetegaegig 825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            898 geogogotetacgogotetgotggggteegeaceacgogeteateetgtgettetggtae 957
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gcyctctycycctygtctyctycygacyccatctycygygagacccyaytygct 1003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cgetteegeegeetgtggeegtgeggeegeegaegeegeeaeegtgeeegeegeet 1135
                                                                       ctgggtcgcctggacgcttgctccactgtcttgccgctctacgccaaggcctacgtgctc
                                                                                                                                                                                                                                                        cgccgcgccctggacgtggccaccttcgctgccggctacctgctgccgtggctgtggtg
                                                                                                                                                                                                                                                                                                                                                                  acttgaccogggcgcgtcgcaagccgcgctcgctggctgcgcacgctcagcgtg
                                                                                                                                                                                                                                                                                                                                                                                                  838 gcggccgaggcgcggcggaggcgacggcgcgcgcgcggggcgcgcgcgtg
                                      ö
   Length 1417;
                                      Indels
Score 67.6; DB 4;
Pred. No. 9.2e-05;
0; Mismatches 294;
5.6%;
larity 45.4%;
Conservative
                   Similarity
Query Match
Best Local S
                                    Matches
                                                                                                                                              526
                                                                                                                                                                               658
                                                                                                                                                                                                                   586
                                                                                                                                                                                                                                                                                            646
                                                                     466
                                                                                                                                                                                                                                                        718
                                                                                                                                                                                                                                                                                                                                                                  904
                                                                                                                                                                                                                                                                                                                                                                                                                                         994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               928
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         946
                                                                                                       g
                                                                                                                                              à
                                                                                                                                                                               <del>Q</del>
                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                    ద
                                                                                                                                                                                                                                                                                           δ
                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      å
```

Search completed: January 16, 2002, 23:35:16 Job time: 9133 sec

us-09-842-316-2.rspt

```
å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q9h228 homo sapien Q9jkm5 rattus norv Q9gy79 rattus norv Q99m08 mus musculu Q9fx235 mus musculu Q9fx36 mus musculu Q9fx98 homo sapien Q9ddk4 brachydanio Q99nr8 castor cana Q9fx3 sorex arane Q9fx1 sorex arane Q9fx1 equil tacz Q9bf73 condylura c Q9bf74 condylura c Q9bf74 condylura c Q9bf76 condylura c Q9bf79 condylura c Q99bf79 condylura c Q9bf79 c Q9
                                                                                                                                                                                  January 16, 2002, 23:38:08; Search time 112.43 Seconds (without alignments) 517.801 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                               US-09-842-316-2
2019
1 MESGLLRPAPVSEVIVLHYN.....TGSFGAPTAARTLVSEPAAD 398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Description
GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 473505 seqs, 146272329 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SUMMARIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                         OM protein - protein search, using sw model
                                                                                                                                                                                                                                                                                                                                                                                                                                                   BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        090779
099MN8
09R235
09DC35
09DC4
09DDK4
099NR8
099F72
099F72
099F72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q99NQ7
Q9BF73
Q9BF46
Q99NQ9
Q99NR1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sp_bacteria:*
sp_fung1:*
sp_human:*
sp_invertebrate:*
sp_mammal:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            sp_vertebrate:*
sp_unclassified:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sp_organelle:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Minimum DB seq length: 0
Maximum DB seq length: 2000000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sp_plant:*
sp_rodent:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     %
Query
Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SPTREMBL_17:*
: Sp_archea:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sp_virus:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sp_phage: *
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score
                                                                                                                                                                                                                                                                                                                   Title:
Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1714.5
1698.5
1625.5
865.5
863.5
838.5
814.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Database :
                                                                                                                                                                                                                                                                                                                                                                                      Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Searched:
                                                                                                                                                                                             Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Result
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               è.
```

Q9bf75 myrmecophag Q99nr0 cavia tschu Q9bf79 enbloepus h Q9bf46 euphractus Q9bf44 tapirus ind Q99nr7 muscardinus Q9bf41 panthera on Q9bf41 panthera on Q9bf76 tamandus te Q9bf76 tamandus te Q9bf76 tamandus te Q9bf76 tamandus te Q9bf76 macroscelid Q99nr2 dipodomys h Q9bf67 macroscelid Q99nr3 erethizon d Q9bf69 roccavia ca Q9bf69 roccavia ca Q9bf670 trichechus Q9bf70 trichechus Q9bf70 trichechus Q9bf68 loxodonta a Q9bf77 chaetophrac Q9bf66 loxodonta a Q9bf67 hylobates c Q9bf66 elephantulu Q9bf66 elephantulu Q9bf66 elephantulu	AA. e update) for update) for update) vertebrata; Euteleostomi; Hominidae; Homo. 1-phosphate receptor, Edg- /DDBJ databases. 1-phosphate receptor, 1. 1.	tch al Similarity 100.0%; Score 2019; DB 4; Length 398; al Similarity 100.0%; Pred. No. 5.1e-125; 398; Conservative 0; Mismatches 0; Indels 0; Gaps 0 MESGLLRPAPVSEVIVLHYNTGKLRGARYOPGAGLRADAVVCLAVCAFIVLENLAVLLV 60 HIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII
Q9BF75 Q99NRO Q99BF79 Q9BF44 Q99BF42 Q99BF42 Q99BF76 Q99BF62 Q99BF62 Q99BF63 Q99BF69 Q99BF69 Q99BF69 Q99BF69 Q99BF70 Q99BF70 Q99BF70 Q99BF70 Q99BF70 Q99BF70 Q99BF70 Q99BF70 Q99BF70 Q99BF70 Q99BF70 Q99BF70 Q99BF70 Q99BF70	ALIGNMENT PRT; 398 eated) ested) ex sequenc st annotet OR EDG-8. Craniata; Craniata; Catarrhini phingosine BL/GenBank psn. CEE_F1_1; CEE_F1_2; 34ADC6C40	; Score 2019; DB ; Pred. No. 5.1e-1 0; Mismatches GKLKGARYQPGAGLRADAN GKLKGARYQPGAGLRADAN ILLAGAAYAANILLSGPLTI LLAGAAYAANILLSGPLTI LLAGAAYAANILLSGPLTI LLAGAAYAANILLSGPLTI
39.66 30.66 30.66 30.66 30.66 30	RELIMINA TTEMBLE TTEMBLE PHOSPHA (Human) (Huma	Similarity 100.08 8; Conservative GLRPAPVSEVIVLHYNTY GLIRPAPVSEVIVLHYNTY GLIRPAPVSEVILHIIIII GLIRPAPVSEVILLGSILLSDI IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII
20 22 22 24 25 26 27 27 29 20 20 20 30 31 31 31 31 32 33 34 35 36 37 37 37 37 37 37 37 37 37 37 37 37 37	RESULT 1 09H228 AC 09H228 COH228 COH228 OT 01-MAR-2001 (TTEMBLE) OT 01-MAR-2001 (TTEMBLE) OT 01-MAR-2001 (TTEMBLE) DE SPHINGOSINE 1-PHOSPH SPHINGOSINE 1-PHOSPH SPHINGOSINE 1-PHOSPH NOBI_TRAID=0606; NN NEBL_TRAID=0606; NN NEBL_TRAID=0606; NN NEBL_TRAID=0606; NN NEBL_TRAID=0606; NN NEBL_TRAID=0606; NN NEBL_TRAID=0606; NN SEQUENCE FROM N.A. RT "Characterization of R	Query Match Best Local Simi Matches 398; 1 MESGLLR 1 MES
	R R R R R R R R R R R R R R R R R R R	

121 ASVLSLLAIALERSLTMARRGPAPVSSRGRTLAMAAAAWGVSLLLGLLPALGWNCLGRLD 180

~

```
LENPIIYTLTNRDLRHALLRLVCCGRHSCGRDPSGS-QQSASAABAS-GGLRRCLPPGLD 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WEDLING-99453967; PubMed=10532805;
MEDLING-99453967; PubMed=10532805;
MEDLING-99453967; PubMed=10532805;
MILL Malek R.L., Waltek Black A.E., Jacob H.J., Lee N.H.;
The collidation of a novel nerve growth factor-regulated G-protein-
toralization of a novel nerve growth factor-
toralizati
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ASVLSLLAIALERSLTMARRGPAPVSSRGRTLAMAAAAWGVSLLLGLLPALGWNCLGRLD 180
      241 SÄHTPRSLALLRTLSVVLLAFVACWGPLFLLLLLDVACPARACPVLLQADPFLGLAMANS 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LCRHPRFHAPMFLLLGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121 ASVLSLLAIAIERHLTMARRGPAPAASRARTLAMAVAAWGLLLTLGLLPALGWNCLGRLE 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Enkaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ACSTVLPLYAKAYVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGT-AGTTSTR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SHIPPRSLALLETTESVVLLAFVACHGPLFLLLLDVACPARACPVLLQADPFLGLAMANS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 MESCILRPAPVSEVIVLHYNYTGKLRGARYQPGAGLRADAVVCLAVCAFIVLENLAVLLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              240 ARRKPRSLALLRTLSVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LLNPIIYTLTNRDLRHALLRLVCCGRHSCGRDPSGS-QQSASAAEAS-GGLRRCLPPGLD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      84.1%; Score 1698.5; DB 11; Length 400; dlarity 86.1%; Pred. No. 5.1e-104; Conservative 16; Mismatches 36; Indels 3;
                                                                                                                                                                                                                                                                                                                                                                                                                               01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-MAY-2001 (TrEMBLrel. 17, Last annotation update)
01-UON/2001 (TrEMBLrel. 17, Last annotation update)
GROWTH FACTOR-REGULATED G PROTEIN-COUPLED RECEPTOR NRG-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               400 AA; 42368 MW; 72B46CCE3BD24D4B CRC64;
                                                                                                                                                                                                         358 GSFSGSERSSPORDGLDTSGSTGSPGAPTAARTLVSE 394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GSFSGSERSSPQRDGLDTSGSTGSPGAPTAARTLVSE 394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    400 AA
                                                                                                                                                                                                                                                                                                                                                                               PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Rattus norvegicus (Rat).
                                                                                                                                                                                                                                                                                                                                                                               PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
Matches 342; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Receptor.
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                         090Y79
090Y79;
                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  61
                                                            300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             358
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                      RESULT
090Y79
                                                                                                                  셤
                                                               ð
                                                                                                                                                                        à
                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ж
;;
                                                                                                                                                                                                                               300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121 ASVLSLLAIALERSLTMARRGPAPVSSRGRTLAMAAAAWGVSLLLGLLPALGWNCLGRLD 180
                                                                                                                                                                     RRKPRSLALLRTLSVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSL 300
                                                                                                                                                                                                                                                                                     LNPIIYTLINRDLRHALLRLVCCGRHSCGRDPSGSQQSASAAEASGGLRRCLPPGLDGSF 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Rattus norvegicus (Rat).
Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
NCBL_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ARRKPRSLALLRISVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANS 299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ASVLSLLAIALERSLTMARRGPAPVSSRGRTLAMAAAAWGVSLLLGLLPALGWNCLGRLD 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACSTVLPLYAKAYVLFCVLAFVGILAAICALYARIYCOVRANARRLPARPGT-AGTTSTR 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      [1]
SEQUENCE FROM N.A.
MEDLINE-20261551; PubMed=10799507;
MEDLINE-20261551; PubMed=10799507;
MEDLINE-20261551; PubMed=10799507;
Heavens K.P., Rigby M.R., Hla T., Mandala S., McAllister G.,
George S.R., Lynch K.R.,
"Characterization of a novel sphingosine 1-phosphate receptor, Edg-
                                                                                    1 MESGLLRPAPVSEVIVLHYNYTGKLRGARYOPGAGLRADAVVCLAVCAFIVLENLAVLLV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACSTVLPLYAKAYVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 84.9%; Score 1714.5; DB 11; Length 400; Best Local Similarity 87.2%; Pred. No. 4.6e-105; Matches 346; Conservative -14; Mismatches 34; Indels 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 400 AA; 42368 MW; 71B398DC4DEE0FEB CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-0CT-2000 (TrEMBLrel. 15, Created)
01-0CT-2000 (TrEMBLrel. 15, Last sequence update)
01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
SPHINGOSINE 1-PHOSPHATE RECEPTOR EDG-8.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; AF233649; AAF25912.1;
EMBL; AF2333649; AAF25912.1;
Interpro; IPR000276; GPCR_Rhodpsn.
PFUNTS; PR00237; GPRCRHODOPSN.
PROSTITE; PS00237; GPROTEIN_RECEP_F1_1; UNKNOWN_1.
PROSTITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                 SGSERSSPORDGLDTSGSTGSPGAPTAARTLVSEPAAD 398
                                                                                                                                                                                                                                                                                                                                                                                                                               Æ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Receptor.
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             09JKM5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q9JKM5
                                                                                                                                                                     241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61
                                                         181
                                                                                                                                                                                                                                                                                  301
                                                                                                                                                                                                                                                                                                                                     301
                                                                                                                                                                                                                                                                                                                                                                                              361
                                                                                                                                                                                                                                                                                                                                                                                                                                                        361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SECULAR OF SECURAR OF SECULAR OF SECULAR OF SECULAR OF SECULAR OF SECULAR OF SECURAR OF SECULAR OF SECURA OF SECULAR OF SECULAR OF SECURAR OF SECURAR OF SECURAR OF SECURA OF SECURAR OF SE
윱
                                                   ö
                                                                                                   셤
                                                                                                                                                      õ
                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
```

ښ :

Gaps 9 9 239

```
01-JUN-2001 (TrEMBLrel. 17, 01-JUN-2001 (TrEMBLrel. 17, 01-JUN-2001 (TrEMBLrel. 17,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ENDOTHELIAL DIFFERENTIATION
                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          371 DGLDTSGSTGSPG 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DDGDNPETIMSSG 376
                                                                                                                                                                                                  Best Local Similarity
Matches 181; Conser
                                                                                                                                                  Receptor.
SEQUENCE
                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q9DC35
                                                                                                                                                                                                                                                                                                                                                                                                                                  312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q9DC35
윱
                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                              å
                                                                                                                                                                                                                                                                                                                               ద
                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                     名
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                έ
                                                                                                                                                                 Yang A.H., Zhang G., Chun J.J.M.;
"Molecular cloning of the mouse sphingosine-1-phosphate receptor gene,"
                                                                                                                                                                                                                                                                                                                                                            134 SLTWARRGPAPVSSRGRTLAMAAAWGVSLLLGLLPALGWNCLGRLDACSTVLPLYAKAY 193
                                                                                                                                                                                                                                                                                                                                                                                                  194 VLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGT-AGTTSTRARRKPRSLALLRT 252.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     240
                                                                                                                                                                                                                                                                                                                                                74 LLGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLSLLAIALER 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LRHALLRLVCCGRHSCGRDPSGS-QQSASAAEAS-GGLRRCLPPGLDGSFSGSERSSPQR 370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3; Gaps
                                                                                                                                                                                                                                                                                                       Eukaryota, Merazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                        LSVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSLLNPIIYTLTNRD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                     DB 11; Length 387;
                                                                                                                                                                                                                                                                   Score 1625.5; DB 11; LengtPred. No. 3e-99;14; Mismatches 36; Indels
                                                                                                                                                                                              Submitted (NOV-2000) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                             1
387 AA; 40953 MW; B56B47672BF5E977 CRC64;
                                                      01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
SPHINGOSINE-1-PHOSPHATE RECEPTOR LPB4 (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
                          Ą
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          382 AA
                          387
                                             Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ||:||| |||||||| || ||:||
| DGVDTSCSTGSPGVATANRSLV 382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DGLDTSGSTGSPGAPTAARTLV 392
                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 86.1%;
Matches 329; Conservative 14
                                                                                                                                                                                                         EMBL; AF327535; AAK15485.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LYSOPHOSPHOLIPID RECEPTOR B1
                                           (TrEMBLrel. 17, (TrEMBLrel. 17,
                                                                                                                                             SEQUENCE FROM N.A.
STRAIN-SWISS WEBSTER/NIH;
                        PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRELIMINARY;
                                                                                            musculus (Mouse)
                                                                                                                          NCBI_TaxID-10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID-10090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EDG1 OR LPB1.
                                          01-JUN-2001
01-JUN-2001
01-JUN-2001
                                                                                                                                                                                                                             NON_TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       09R235
09R235;
                                    099MNB;
                        6099MNB
                                                                                                                                                                                   Lpb4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                301
                                                                                             Mus
    RESULT
Q99MN8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                       ð
                                                                                                                                                                                                                                                                                                                                                                                                         윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ö
```

```
72 FLLLGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLSLLAIAL 131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DLRHALLRLVCCGRHSCGRDPSGSQQSASAAEASGGLRRCLPPGLDGSFSGSERSS-PQR 370
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                33 DIIVRHYNYTGKLNIGA--EKDHGIKLJSVVPILICCFIILENIFVLLTIWKTKKFHRPM 80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               13 EVIVLHYNYTGKLR-GARYQPGAGLRADAVYCLAVCAFIVLENLAVLLVLGRHPRFHAPM 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Last sequence update)
Last annotation update)
SPHINGOLIPID G-PROTEIN-COUPLED RECEPTOR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ж.;;;я
ж.;;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Fukushima N., Chun J.;
G-protein coupled receptors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 132 ERSLIWARRGPAPVSSRGRILAMAAAAWGVSLLLGLLPALGWNCLGRLDACSTVLPLYAK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        192 AYVLFCVLAFVGILAAICALYARIYCOVRANARRLPARPGTAGTTSTRARRPRSLALLR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=LUNG;
STRAIN=21085660; PubMed-11217851;
Kawai J., Shinaqawa A., Shibata K., Yoshino M., Itoh M., Ishii I Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda Alawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito
                                                                                                                                                                                                                                                                                                                                                                                                 42.9%; Score 865.5; DB 11; Length 382; 48.5%; Pred. No. 1.8e-49; 1ve 66; Mismatches 105; Indels 21;
                                                                                                                                                                                                                                                                                                                       382 AA; 42613 MW; 2EE4B974E9FBF39C CRC64;
                                                                                                                                                                                                                 PRINTS; PR00237; GPCRRHODOPSN.
PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; UNKNOWN_1.
PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          382 AA.
                  Zhang G., Contos J.J.N., Weiner J.A., Fuku "Comparative analysis of three murine G-pr activated by sphingosine-1-phosphate."; Gene 22:89-99(1999).
EMBL, AP108019; AAD16975.1; MGD, MGI:1096555; Edgl.
InterPro; IPR000276; Edgl.
Pfam; PF00001; 7tm_1; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
MEDLINE-99132320; PubMed-9931453;
```

ς, .`

```
Receptor.
SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q9DDK4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q9DDK
          ð
                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                               9
Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T., Kledschmann W., Gaasterland T., Gissi C., King B., Kochiwa H., Kuehl P., Lewis S., Matsuo Y., Nikaido T., Pasole G., Quackenbush J., Schriml L.M., Staubli F., Jezuki R., Tomita M., Wagner L., Washio T., Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G., Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F., Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M., Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H., Nordone P., Ring B., Ringwald M., Rodriguez I., Sakanoto N., Sabaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F., Suzuki H., Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming L., Haynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       72 FLLLGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLSLLAIAL 131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       132 ERSLIMARRGPAPVSSRGRTLAMAAAAWGVSLLLGLLPALGWNCLGRLDACSTVLPLYAK 191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          312 DLRHALLRLVCCGRHSCGRDPSGSQQSASAAEASGGLRRCLPPGLDGSFSGSERSS-PQR 370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AYVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRARRFPRSLALLR 251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TLSVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSLLNPIIYTLTNR 311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EVIVLHYNYTGKLR-GARYQPGAGLRADAVVCLAVCAFIVLENLAVLLVLGRHPRFHAPM 71
                                                                                                                                                                            Hayashizaki Y.;

"Functional annotation of a full-length mouse cDNA collection.";

EMBL, AK004591; BAB23393.1;

EMBL, AK004591; BAB23393.1;

EMBL, AK004591; BAB23393.1;

EMBL, AK004591; BABC3393.1;

EMBL, AK004591; BABC3393.1;

PROSONOTO, FORCERHOOPEN.

PRINTE, PROMOTO, TURNOWN_1.

PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.

SEQUENCE 382 AA; 42639 MW; 5FE4C9A2BD55CB2A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Craniata; Vertebrata; Euteleostomi;
Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                               42.8%; Score 863.5; DB 11; Length 382; 48.5%; Pred. No. 2.5e-49; Live 65; Mismatches 106; Indels 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-CCT-2000 (TrEMBLrel. 15, Created)
01-CCT-2000 (TrEMBLrel. 15, Last sequence update)
01-UNN-2001 (TrEMBLrel. 17, Last annotation update)
G PROTEIN-COUPLED SPHINGOLIPID RECEPPOR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 382 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo saplens (Human),
Eukaryota; Metazoa; Chordata;
Mammalla; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 48.5%
Matches 181; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          364 DDGDNPETIMSSG 376
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DGLDTSGSTGSPG 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9NXN60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q9NYN8
                                                                                                                                                                                                                                                                                                                                                                                                                   13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ģ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
```

```
MEDLINE-20563813; PubMed=11112429; MEDLINE-20563813; PubMed=11112429; MEDLINE-20563813; PubMed=11112429; MEDLINE-20563813; PubMed=11112429; MEDLINE-20563813; PubMed=11112429; Media deceptor acceptor a zebrafish (Danio rerio) sphingosine 1-phosphate receptor expressed in the embryonic brain."; Blochem. Blophys. Res. Commun. 279:139-143(2000).

EMBL; A3231294; AAG45430.1; -..
Interpro; IPRN00276; GPCR_Rhodpsn.
PFAM; PF00001; 7tm_1; 1.
PRINTS; PR00237; GPROTEIN_RECEP_FI_1; UNKNOWN_1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                133 RİLIMARRGPAPVSSRGRTLAMAAAMGVSLLLGLLPALGWNCLGRLDACSTVLPLYAKA 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        201
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               312
                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 81
                                                                                                                                                                                                                                                                                                                                                                                                  23 DIIVRHYNYTGKLNISADKENS-IKLISVVFILICCFILLENIFVLLTIWKTKKFHRPMY
                                                                                                                                                                                                                                                                                                                                                                                                                                                      73 LILIGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLSLLAIALE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                253 LSVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSLLNPIIYTLTNRD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            313 LRHALLRLVCCGRHSCGRDPSGSQQSASAAEASGGLRRCLPPGLDGSFSGSERSS-PQRD
                                                                                                                                                                                                                                                                                                                                                                        13 EVIVLHYNYTGKLRGARYQPGAGLRADAVVCLAVCAFIVLENLAVLLVLGRHPRFHAPMF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         193 YVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRARRKPRSLALLRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       102 YELFCTIVFILLISIVILYCRIYSLVRTRSRRLTFRK----NISKASRSSEKSLALLKT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Brachydanio rerio (Zebrafish) (Zebra danio).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei; Ostariophysi;
Cypriniformes; Cyprinidae; Rasborinae; Danio.
                                                                                                                                                                                                                                                                                              Length 382;
                                                                                                                                                                                                                                                                                     Query Match 41.5%; Score 838.5; DB 4; Length Best Local Similarity 47.3%; Pred. No. 1.1e-47; Matches 176; Conservative 66; Mismatches 111; Indels
SEQUENCE FROM N.A.
Tigyl G.J. Sr., Wang D. Sr.;
"Correction to Human EDG1 sequence.";
Submitted (FEB-2000) to the EMBL/GenBank/DDBJ databases.
EMBL; AF233365; ARF43420.1;
InterFro; IRR002276; GPCR_Rhodpsn.
                                                                                                                                                                                                                             42810 MW; OCCE8685A5E1BAD2 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-MAR-2001 (TrEMBLrel. 16, Created)
01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
EPHINGOSINE 1-PHOSPHATE RECEPTOR.
                                                                                                                                                                    UNKNOWN_1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       362
                                                                                                                         Pfam: PF00001; 7tm_1; 1
PRINTS; PR00231; GPCRHOODESN.
PROSITE: PS00237; G_PROTEIN_RECEP_F1_;
PROSITE; PS50262; G_PROTEIN_RECEP_F1_2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     372 GLDTSGSTGSPG 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            365 EGDNPETIMSSG 376
                                                                                                                                                                                                                           382 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID-7955;
```

```
240 VGCKAKTCDILYKAEFFLVLAVLNSGTNPIIYTLTNKEMRRAFIRIV----SCCKCPNG 294
      215 IYCOVRANARRLPARPGTAGTTSTRARRPRSLALLRTLSVVLLAFVACWGPLFLLLLLD 274
                                                                                                                                                                 VACPARTCPVLLQADPFLGLAMANSLLNPIIYTLTNRDLRHALLRLVCCGRHSCGRDPSG 334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      64 LSGATTYKLTPAQMFVREGSMFVALSASVFSLLAIAIERYITMLKMKLHNSSNSSRSFLL 123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              155 AAAAWGVSLLLGLLPALGWNCLGRLDACSTVLPLYAKAYVLFCVLAFVGILAAICALYAR 214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAAAWGVSLLLGLLPALGWNCLGRLDACSTVLPLYAKAYVLFCVLAFVGILAAICALYAR 214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     95 LSGPLTLKLSPALWFAREGGVFVALTASVLSLLAIALERSLTMARRGPAPVSSRGRTLAM 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       215 IYCQVRANARRLPARPGTAGTTSTRARRKPRSLALLRTLSVVLLAFVACWGPLFLLLLLD 274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  275 VACPARTCPVLLQADPFLGLAMANSLLNPIIYTLTNRDLRHALLRLVCCGRHSCGRDPSG 334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4 GIKLTSVVFILICCFILIENIFVLLTIWKTKKFHRPMYYFIGNLALSDLLAGVAYIANLL 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             35 GLRADAVVCLAVCAFIVLENLAVLLVLGRHPRFHAPMFLLLGSLTLSDLLAGAAYAANIL 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Castor canadensis (American beaver).
Eukaryota: Wetasoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutharia; Rodentia; Sciurognathi; Castoridae; Castor.
NCBL_raxID=51338;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Molecular phylogenetics and the origins of placental mammals.";
Nature 409:614-618(2001).
EMBL; AY011703; AAK01972.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE-21082082; PubMed-11214319;
Murphy W.J., Eizirik E., Johnson W.E., Zhang Y.P., Ryder O.A.,
O'Brien S.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 326;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ouery Match 40.2%; Score 812; DB 11; Length 3 Best Local Similarity 49.1%; Pred. No. 5.1e-46; Matches 166; Conservative 61; Mismatches 93; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            326 326
326 AA; 36552 MW; 4BA3EEC6266D1AFA CRC64;
                                                                                                                                                                                                                                                                                                                                                                     Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                         335 SQOSASAAEASGGLRRCLPPGLDGSFSGSERSS-PQRD 371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            335 SQQSASAAEASGGLRRCLPPGLDGSFSGSERSS-PQRD 371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             295 -----DSTGKIKRPIIAGMEFSRSKSDNSSHPQKD 324
                                                                                                                                                                                                                                                                                                                             326 AA
                                                                                                                                                                                                                                                                                                                                                           Created)
                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                                   01-JUN-2001 (TrEMBLrel. 17, 01-JUN-2001 (TrEMBLrel. 17, 01-JUN-2001 (TrEMBLrel. 17, EDG1 (FRAGMENT).
                                                                                                                                                                                                                                                                                                                             PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NON_TER
NON_TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                            099NR8
                    g
                                              ö
                                                                          유
                                                                                                       ò
                                                                                                                                   g
                                                                                                                                                                 ð
                                                                                                                                                                                         윱
                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                   쉽
                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                       ;
                                                                                                                                                                                                       71 MFILLGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLSLLAIA 130
                                                                                                                                                                                                                                              131 LERSLTMARRGPAPVSSRGRT---LAMAAAAWGVSLLLGLLPALGWNCLGRLDACSTVLP 187
                                                                                                                                                                                                                                                                                                                                          233
                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                         LYAKAYVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRARRKPRSL 247
                                                                                                                                                                                                                                                                                                                                                                    ALLRILSVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSLLNPIIYT 307
                                                                                                                                                                                                                                                                                                                                                                                                                         LTNRDLRHALLRLVCCGRHSCGRDPSGSQQSASAAEASGGLRRCLPPGLDGSFSGSERSS 367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LSGPLTLKLSPALWFAREGGVFVALTASVLSLLAIALERSLTMARRGPAPVSSRGRTLAM 154
                                                                                                                               11 VSEVIVLHYNYTGKLRGARYQPGAGLRADAVVCLAVCAFIVLENLAVLLVLGRHPRFHAP 70
                                                                                                                                                35 GLRADAVVCLAVCAFIVLENLAVLLVLGRHPRFHAPMFLLLGSLTLSDLLAGAAYAANIL 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sclurognathi; Muridae; Musinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Molecular phylogenetics and the origins of placental mammals."; Nature 409:614-618(2001).
EMBL: AY011706; AAK01975.1;
                                                                       40.3%; Score 814.5; DB 13; Length 362;
larity 47.1%; Pred. No. 3.8e-46;
Conservative 59; Mismatches 107; Indels 27;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
MEDLINE-21082082; PubMed-11214319;
Murphy W.J., Elzirik E., Johnson W.E., Zhang Y.P., Ryder O.A.,
O'Brien S.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ouery Match 40.3%; Score 814; DB 11; Length 326; Best Local Similarity 49.1%; Pred. No. 3.8e-46; Matches 166; Conservative 61; Mismatches 93; Indels 1
                              40583 MW; 43A398871DA2D9D4 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     326 326
326 AA; 36574 MW; 7B6DF34BD398B1F7 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           326 AA.
PS50262; G_PROTEIN_RECEP_F1_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-JUN-2001 (TrEMBLrel. 17, 01-JUN-2001 (TrEMBLrel. 17, 01-JUN-2001 (TrEMBLrel. 17, EDG1 (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRELIMINARY;
             Receptor.
SEQUENCE 362 AA;
                                                                       Ouery Match
Best Local Similarity
Matches 172; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID-10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   368 -PQRD 371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              338 HPNKD 342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NON_TER
NON_TER
SEQUENCE
 PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        099NR5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        099NR5
                                                                                                                                                                                                                                                                                                                                                                  248
                                                                                                                                                                                                                    59
                                                                                                                                                                                                                                                                                                         188
                                                                                                                                                                                                                                                                                                                                                                                                                          308
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEE
                                                                                                                                                         셤
                                                                                                                                                                                        ö
                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
```

9

us-09-842-316-2.rspt

09BF63

```
140 VGCKVKTCAILFKAEYFLVLAVLNSAINPIIYILINKEMRRAFIRIM----SCCKCPSG 294
                                                                                                                                                                                                                                                                                                                     95 LSGPLTLKLSPALWFAREGGVFVALTASVLSLLAIALERSLTMARRGPAPVSSRGRTLAM 154
                                                                                                                                                                                                                                                                                                                                                                                         155 AAAAWGVSLLLGLLPALGWNCLGRLDACSTVLPLYAKAYVLFCVLAFVGILAAICALYAR 214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  215 IYCQVRANARRLPARPGTAGTTSTRARRKPRSLALLRTLSVVLLAFVACWGPLFLLLLLD 274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      275 VACPARTCPVLLQADPFLGLAMANSLLNPIIYTLTNRDLRHALLRLVCCGRHSCGRDPSG 334
                                                                                                                                                                                                                                                                    4 GIRRISOVFILICCFILIENIFVLLTIWKTKKFHRPMYYFIGNLALSDLLAGVAYIANLL 63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   35 GLRADAVVCLAVCAFIVLENLAVLLVLGRHPRFHAPMFLLLGSLTLSDLLAGAAYAANIL 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hystrix brachyurus.
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Hystricognathi; Hystricidae; Hystrix.
NCBI_TaxID=143286;
                                                                                                                                                                                                                                             35 GIRADAVVCLAVCAFIVLENLAVLLVLGRHPRFHAPMFLLLGSLTLSDILLAGAAYAANIL
                            "Molecular phylogenetics and the origins of placental mammals."; Nature 409:614-618(2001).
EMBL: AX011694; AAK01963.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      O'Brien S.J.;
"Molecular phylogenetics and the origins of placental mammals.";
Nature 409:614-618(2001).
EMBL; AY011708; AAK01976.1; -.
NON_TER 3.26
SEQUENCE 3.26 AA; 36546 MW; 3E66CA765F725BA9 CRC64;
                                                                                                                                                                                                             18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            95; Indels 18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
MEDLINE-21082082; PubMed-11214319;
Murphy W.J., Bizirik E., Johnson W.E., Zhang Y.P., Ryder O.A.,
Murphy W.J., Eizirik E., Johnson W.E., Zhang Y.P., Ryder O.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 326;
                                                                                                                                                                            Length 326;
                                                                                                                                                                                                             95; Indels
                                                                                                                     326 AA; 36577 MW; 5BBB6812E3F635B7 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Created)
Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
39.8%; Score 804; DB 11;
Best Local Similarity 48.8%; Pred. No. 1.7e-45;
Matches 155; Conservative 60; Mismatches 95;
                                                                                                                                                                         39.8%; Score 804; DB 6;
48.8%; Pred. No. 1.7e-45;
tive 60; Mismatches 95;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         335 SQGSASAAEASGGLRRCLPPGLDGSFSGSERSS-PQRD 371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             326 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-JUN-2001 (TrEMBLrel. 17, 01-JUN-2001 (TrEMBLrel. 17, 01-JUN-2001 (TrEMBLrel. 17, EDG1 (FRAGMENT).
                                                                                                                                                                                          Best Local Similarity 48.8 Matches 165; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRELIMINARY;
                                                                                                    326
               Brien S.J.;
                                                                                   non_ter
non_ter
Sequence
                                                                                                                                                                         Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  099NR4
099NR4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 13
Q99NR4
                                                                                                                                                                                                                                                                                                                                                       64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             295
g
                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                     유
                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                合
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     275 VACPARTCPVLLQADPFLGLAMANSLLNPIIYTLTNRDLRHALLRLVCCGRHSCGRDPSG 334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         35 GLRADAVVCLAVCAFIVLENLAVLLVLGRHPRFHAPMFLLLGSLTLSDLLAGAAYAANIL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IYCQVRANARRLPARPGTAGTTSTRARRKPRSLALLRTLSVVLLAFVACWGPLFLLLLLD
                                                                                                                                                                                      Ochotona hyperborea (northern pika).
Eukaryota; Wetasoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Lagomorpha; Ochotonidae; Ochotona.
NCBL_TaxID=130834;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sorex araneus (Eurasian common shrew) (European shrew).
Eukaryota, Metazoa; Chordata, Craniata, Vertebrata, Euteleostomi;
Mammalia; Eutheria; Insectivora; Soricidae; Sorex.
                                                                                                                                                                                                                                                                                                                                                  "Molecular phylogenetics and the origins of placental mammals."; Nature 409:614-618(2001).
EMBL; AY011717; AAK01985.1; -.
                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
MEDLINE-21082082; PubMed-11214319;
Murphy W.J., Elzirik E., Johnson W.E., Zhang Y.P., Ryder O.A.,
O'Brien S.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 326;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  93; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                          326 326
326 AA; 36468 MW; 2DEC66EF94397F97 CRC64;
                                                                                              01-JUN-2001 (TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
EDGI (FRAGMENI).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-JUN-2001 (TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
EDG1 (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 39.9%; Score 805; DB 6; Best Local Similarity 48.8%; Pred. No. 1.5e-45; Matches 165; Conservative 62; Mismatches 93
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              335 SOQSASAAEASGGLRRCLPPGLDGSFSGSERSS-PQRD 371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   326 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           326 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT;
                                                              PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
MEDLINE-21082082; Pubmed-11214319;
                                                                PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID-42254;
```

NON_TER NON_TER SEQUENCE

÷

Gaps

Q9BF72 RESULT 12 09BF72

295

215

ö

g

ð 셤 Ġ 용

셤

ò

셤 ð 셤

ð

```
-----DAAGKVKRPIVAGVEFSRSKSDNSSHPQKD 324
                                                                                                          EDG1 (FRAGMENT)
                                                                                                                                                                                                                                                   NON_TER
NON_TER
SEQUENCE
                                                       099N07
                                   RESULT 15
     295
                                                                                                                                                                                                                                                                                                                                                                                                         65
                                             099NQ7
     g
                                                                 δ
                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ô
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4
         LSGPLTLKLSPALWFAREGGVFVALTASVLSLLAIALERSLTMARRGPAPVSSRGRTLAM 154
                                                                                                                     95 LSGPLTLKLSPALWFAREGGVFVALTASVLSLLAIALERSLTMARRGPAPVSSRGRTLAM 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAAAWGVSLLLGILPALGWNCLGRLDACSTVLPLYAKAYVLFCVLAFVGILAAICALYAR 214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   215 IYCQVRANARRLPARPGTAGTTSTRARRKPRSLALLRTLSVVLLAFVACWGPLFLLLLLD 274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             275 VACPARTCPVLLQADPFLGLAMANSLLNPIIYTLTNRDLRHALLRLVCCGRHSCGRDPSG 334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      96; Indels 18; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        35 GLRADAVVCLAVCAFIVLENLAVLLVLGRHPRFHAPMFLLLGSLTLSDLLAGAAYAANIL 94
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     155 AAAAWGVSLLLGLLPALGWNCLGRLDACSTVLPLYAKAYVLFCVLAFVGILAAICALYAR
                                                                              215 IYCQVRANARRLPARPGTAGTTSTRARRKPRSLALLRTLSVVLLAFVACWGPLFLLLLLD
                                                                                           Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                 "Molecular phylogenetics and the origins of placental mammals.";
Nature 409:614-618(2001).
EMBL: AY011720; AAK01988.1;
                                                                                                                                                                                                                                                                                                                                                                    MEDLINE-21082082; PubMed-11214319;
Murphy W.J., Eizirik E., Johnson W.E., Zhang Y.P., Ryder O.A.,
O'Brien S.J.;
                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazóa; Chordata; Craniata; Vertebrata; Euteleos;
Mammalia; Eutheria; Primates; Strepsirhini; Lemuridae; Lemur
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 39.8%; Score 803; DB 6; Length 326; 49.4%; Pred. No. 2e-45; Live 57; Mismatches 96; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                            326 '
36289 MW; B4D31565F3D5A6AD CRC64;
                                                                                                                                                                                                                                                       01-JUN-2001 (TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-JUN-2001 (TrEMBLrel. 17, Last annotation update)
                                                                                                                                                                            335 SQQSASAAEASGGLRRCLPPGLDGSFSGSERSS-PQRD 371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                335 SQQSASAAEASGGLRRCLPPGLDGSFSGSERSS-PQRD 371
                                                                                                                                                                                                                                      326 AA
                                                                                                                                                                                                                                      PRT;
                                                                                                                                                                                                                                                                                                       Lemur catta (Ring-tailed lemur).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity 49.48
Matches 167; Conservative
                                                                                                                                                                                                                                     PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    326 AA;
                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A..
                                                                                                                                                                                                                                                                                     EDG1 (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=9447;
                                                                                                                                                                                                                                                                                                                                                                                                                                 NON_TER
NON_TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
                                                                                                                                                                                                                                   09BF60
 95
                   64
                a
                                     ò
                                                         a
                                                                               ö
                                                                                               g
                                                                                                                      ò
                                                                                                                                                             ò
                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
```

```
SGPLTLKLSPALWFAREGGVFVALTASVLSLLAIALERSLTMARRGPAPVSSRGRTLAMA 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           276 ACPARICPVLLQADPFLGLAMANSLLNPIIYTLTNRDLRHALLRLVCCGRHSCGRDPSGS 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             36 LRADAVVCLAVCAFIVLENLAVLLVLGRHPRFHAPMFLLLGSLTLSDLLAGAAYAANILL 95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241 GCKVKTCDILYKAEYFLVLAVLNSGTNPIIYTLTNKEMRRAFIRIM----SCCKCPSG- 294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                :: || :: | ||:|||: || ||: :|| ||: :|| ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: 
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bukaryota; Metazoa; Chordata; Craniata; Vartebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Hystricognathi; Agoutidae; Agouti.
NOBI_TaxID=143288;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         156 AAAWGVSLLLGLLPALGWNCLGRLDACSTVLPLYAKAYVLFCVLAFVGILAAICALYARI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          216 YCQVRANARRLPARPGTAGTTSTRARRKPRSLALLRTLSVVLLAFVACWGPLFLLLLLLDV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Molecular phylogenetics and the origins of placental mammals.";
Nature 409:514-618(2001).
EMBL: AY011715; AAK01983.1; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEGUENCE FRÖM N.A.
MEDLINE-21082082; Pubmed-11214319;
Murphy W.J., Elzirik E., Johnson W.E., Zhang Y.P., Ryder O.A.,
O'Brien S.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 326;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            93; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  326 326
326 AA; 36652 MW; 3AD51684BF81A889 CRC64;
                                                                                                                                                                                Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   39.8%; Score 803; DB 11;
48.7%; Pred. No. 2e-45;
tive 62; Mismatches 93;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      336 QOSASAAEASGGLRRCLPPGLDGSFSGSERSS-PORD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Search completed: January 16, 2002, 23:43:27
Job time: 319 sec
                                                                                                                         Created)
      PRT;
                                          099N07;
01-JUN-2001 (TIEMBLIEL 17,
01-JUN-2001 (TIEMBLIEL 17,
01-JUN-2001 (TIEMBLIEL 17,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 48.78
Matches 164; Conservative
PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                        Agout1 taczanowskii.
```

Gaps

64

215

```
LLLGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLSLLAIALE 132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-196-989B-4
RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       õ
                                                     January 16, 2002, 23:04:03; Search time 58.72 Seconds (without alignments) 152.526 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Appli
Appli
Appli
                                                                                                                                                                                                                                                                                                                              Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 4,
                                                                                       US-09-842-316-2
2019
1 MESGLLRPAPVSEVIVLHYN.....TGSPGAPTAARTLVSEPAAD
                                                                                                                                                                                                                                                                                                                                                                                                 Description
                                                                                                                                                                                                                                                                                                                                                                                                                           Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
Sequence
Sequence
Sequence
Sequence
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                         GenCore version 4.5
Copyright (c) 1993 - 2000 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                                                                                                                                        US-08-467-948A-28
US-08-82-824-118
US-08-467-947A-28
PCT-US96-10618-4
PCT-US96-10618-4
PCT-US99-085-8-73
US-08-118-70-73
                                                                                                                                                                        fotal number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US-08-196-989B-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PCT-US96-10618-3
PCT-US96-10618-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US-08-763-938-2
US-08-861-747-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              US-08-789-982-2
                                                                                                                                                         212252 seqs, 22503292 residues
                                                                                                                                                                                                                                                                                                                                                                    SUMMARIES
                                       protein search, using sw model
                                                                                                                                                                                                                     Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                              BLOSUM62
Gapop 10.0 , Gapext 0.5
                                                                                                                                                                                           Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                            Length
                                                                                                                                                                                                                                                                                                                                                                                    Query
                                                                                         Title:
Perfect score:
                                                                                                                             Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                            Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            7774.5
732.5
631.5
548.5
508.5
508.5
505.5
4499.5
                                     OM protein
                                                                                                             Sequence:
                                                                                                                                                        Searched:
                                                                                                                                                                                                                                                          Database
                                                       Run on:
                                                                                                                                                                                                                                                                                                                                                                                   Result
No.
```

```
.,
2
                                                                                                                                                                                                                                         Appl
Appli
Appli
Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels 19; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  13 EVIVLHYNYTGKLRGARYQPGAGLRADAVVCLAVCAFIVLENLAVLLVLGRHPRFHAPMF 72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              24 DIIVRHYNYTGKL-NIGVEKDHGIKLTSVVFILICCLIILENIFVLLTIWKTKKFHRPMY 82
                       Sequence
Sequence
Sequence
                                                                                                                                                         Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Sequence Seq
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence Sequence S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 383;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               and Expression of
Receptors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 4, Application US/08196989B

Sequence 4, Application US/0819698B

Patent No. 535476

GENERAL INFORMATION:
APPLICANT: MacCennan, A. John
TITLE OF INVENTION: Molecular Cloning and Expression
TITLE OF INVENTION: G-Protein Coupled Receptors
NUMBER OF SEQUENCES: 1
COMPRESSEE: Saliwanchik & Saliwanchik
STREET: 2421 N.W. 41st Street, Suite A-1
CITY: Gainesville
STATE: FL
COMPUTER: FL
COMPUTER: FL
COMPUTER: EADABLE FORM:
MEDIUM TYPE: FLOPAY disk
MEDIUM TYPE: FLOPAY disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: IS-FEB-1994
CLASSIFICATION NUMBER: US/08/196,989B
FILING DATE: 15-FEB-1994
CLASSIFICATION NUMBER: 35,589
REFERENCE/DOCKET NUMBER: MAC-100
TELECOMMUTICATION NUMBER: MAC-100
TELECOMMUTICATION NUMBER: MAC-100
TELEPHONE: 904-375-5800
INFORMATION FOR SEQ ID NO: 4:
SEGUENCE CHARACTERT.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
42.3%; Score 853.5; DB 1;
Best Local Similarity 47.6%; Pred. No. 2.5e-58;
Matches 177; Conservative 66; Mismatches 110;
US-09-097-231-18
US-08-671-525B-10
US-08-672-109B-10
US-08-842-045-10
US-08-842-33B-10
US-08-6629-33B-10
US-08-6629-33B-10
US-08-709-749-6
US-08-870-511-6
US-08-870-511-10
US-08-870-511-12
US-08-870-511-12
US-08-870-511-12
US-08-870-511-12
US-08-870-511-12
US-08-870-511-12
US-08-870-511-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-08-780-749A-2
US-08-629-335B-8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ALIGNMENTS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
LENGTH: 383 amino acids
TYPE: amino acid
```

```
319 MRRAFIRII----SCCKCPNG------DSAGKFKRPIIPGMEFSRSKSDNSSHPQKD 365
                                                                                   133 RSLIMARRGPAPVSSRGRTLAMAAAAWGVSLLLGLLPALGWNCLGRLDACSTVLPLYAKA 192
                                                                                                                                                              193 YVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRARRKPRSLALLRT 252
      73 LÜLGSITISDLIAGAAYAANILISGPUTIKISPALWFAREGGVFVALTASVLSLIAIALE 132
                                           83 YFIGNLALSDLLAGVAYTANLLLSGATTYKLTPAQWFLREGSMFVALSASVFSLLAIAIE 142
                                                                                                                                                                                                                                                                                                                      313 LAHALLRIVCCGRHSCGRDPSGSQQSASAAEASGGLRRCLPPGLDGSFSGSERSS-PQRD 371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 834; DB 2;
Pred. No. 7.8e-57;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 3, Application US/08845566
Patent No. 5912144
GENERAL INFORMATION:
APPLICANT: Au-Young, Janice
APPLICANT: Guegler, Karl
TITLE OF INVENTION: BG-1 LIKE RECEPTOR
NUMBER OF SEQUENCES: 3
CORRESPONDENCE ADDRESS:
ADDRESSE: Incyte Pharmaceuticals, Inc.
STREET: 3174 Porter Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OPERATING SYSTEM: DOS SOFTWARE: FASTSEQ for Windows Version 2.0 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/845,566 FILLNG DATE: FILED HEREWITH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PF-0271 US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: Billings, Lucy J.

REGISTRATION UNDRER: 36,749
REFERENCE/DOCKET UNDRER: PF-0.

TELECOMUNICATION INFORMATION:
TELEFAX: 415-85-0555
TELEFAX: 415-85-4166
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE GRARACTERISTICS:
LENGTH: 381 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     41.38;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM Compatible
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
                                                                                                                                                                                                                                                                                                                                                                                                   372 GLDTSGSTGSPG 383
                                                                                                                                                                                                                                                                                                                                                                                                                                          366 DGDNPETIMSSG 377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TOPOLOGY: linear IMMEDIATE SOURCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  94304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STATE: C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LIBRARY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-08-845-566-3
                                                                                   ö
                                                                                                                    g
                                                                                                                                                              ö
                                                                                                                                                                                                 요
                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ŝ
319 MRRAFIRII-----SCCKCPNG------DSAGKFKRPIIPGMEFSRSKSDNSSHPQKD 365
                                                        133 RSLIMARRGPAPVSSRGRTLAMAAAAWGVSLLLGLLPALGWNCLGRLDACSTVLPLYAKA 192
                                                                                                                                                          YVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRARRKPRSLALLRT 252
                                                                                                                                                                                                                    LSVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSLLNPIIYTLTNRD 312
                                                                                                                                                                                                                                                                                               313 LRHALLRIVCCGRHSCGRDPSGSQQSASAAEASGGLRRCLPPGLDGSFSGSERSS-PQRD 371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13 EVIVLHYNYTGKLRGARYQPGAGLRADAVVCLAVCAFIVLENLAVLLVLGRHPRFHAPMF 72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              34 DIIVRHYNYTGKL-NIGVEKDHGIKLTSVVFILICCLIILENIFVLLTIWRTKKFHRPMY 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 383;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GENERAL INFORMATION:
APPLICANT: MacLennan, A. John
TITLE OF INVENTION: Molecular Cloning and Expression of
TITLE OF INVENTION: G-Protein Coupled Receptors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: 05/08/760,936
FILING DATE: December 6, 1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ouery Match 42.3%; Score 853.5; DB 2; Best Local Similarity 47.6%; Pred. No. 2.5e-58; Matches 177; Conservative 66; Mismatches 110;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
ADDRESSEE: Saliwanchik, Lloyd & Saliwanchik
STREET: 2421 N.W. 41st Street, Suite A-1
CITY: Gainesville
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: December 6, 1996
CLASSIFICATION: 536
ATTORNEX/AGENT INFORMATION:
NAME: PROC. DOTAIR R.
REGISTRATION NUMBER: 38,261
REFERENCE/DOCKET NUMBER: MAC-1
TELECOMMUNICATION INFORMATION:
TELEFAX: 352-375-8800
INFORMATION FOR SEC ID NO: 4:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 4, Application US/08760936
Patent No. 5856443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   383 amino acids
amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                protein
                                                                                                                                                                                                                                                                                                                                                                          372 GLDTSGSTGSPG 383
                                                                                                                                                                                                                                                                                                                                                                                                                 366 DGDNPETIMSSG 377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; MOLECULE TYPE:
US-08-760-936-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               32606
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 2
US-08-760-936-4
                                                                                                                                       193
                                                                                                                                                                                                                  253
                    g
                                                        ö
                                                                                           셤
                                                                                                                                       ö
                                                                                                                                                                          g
                                                                                                                                                                                                                                                     ద
                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
```

```
ç
                                                                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        å
   ŝ
                                                                                                   73 LLLGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLSLLAIALE 132
                                                                                                                        133 RSLTMARRGPAPVSSRGRTLAMAAAAWGVSLLLGLLPALGWNCLGRLDACSTVLPLYAKA 192
                                                                                                                                                                                               253 LSVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSLLNPIIYTLTNRD 312
                                                                                                                                                                                                                                                                                                                                         317 MRRAFIRIM-----SCCKCPSG-------DSAGKFKRPIIAGMEPSRSKSDNSSHPQKD 363
                                                                                                                                                                                                                                                193 YVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRARRKPRSLALLRT 252
                                                                                                                                                                                                                                                                                                                                                                                          313 LRHALLRLVCCGRHSCGRDPSGSQQSASAAEASGGLRRCLPPGLDGSFSGSERSS-PQRD 371
                                 EVIVLHYNYTGKLRGARYQPGAGLRADAVVCLAVCAFIVLENLAVLLVLGRHPRFHAPMF 72
                                                      33 DIIVRHYNYTGKLNISADKENS-IKLISSVVFILICCFIILENIFVLLTIWKTKKFHRRPMY 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FITLE OF INVENTION: Polynucleotides Encoding Human G-Protein
FITLE OF INVENTION: Coupled Receptor GPR2
NUMBER OF SEQUENCES: 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       R, GOLDSTEIN & FOX P.L.L.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN RELEASE #1.0, VERSION #1.30
 Mismatches 110;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1488.1140003/EKS/KLM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: PCT/US95/04079
FILING DATE: 30-MAR-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/467,948A
FILING DATE: 06-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 28, Application US/08467948A
Patent No. 5998164
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENTZ, REINER
BULT, CAROL J.
SUTTON III, GRANGER G.
ROSEN, CRAIG A.
68;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SSEE: STERNE, KESSLER,
I: 1100 NEW YORK AVE.,
WASHINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    IBM PC COMPATIBLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER: 14
FELECOMMUNICATION INFORMATION:
TELEPHONE: 202-371-2600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEFAX: 202-371-2540 INFORMATION FOR SEQ ID NO: 28:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME: STEFFE, ERIC K. REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              I, YI
AO, LIANG
I, JIAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: FLOPPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                             372 GLDTSGSTGSPG 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 364 EGDNPETIMSSG 375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-08-467-948A-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER:
Matches 174;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL
                                                               a
                                                                                                     ô
                                                                                                                                       g
                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
```

```
:| | :|: | | :|: | | 317 MRRAFIRIM-----SCCKCPSG------DSAGKFKRPIIAGMEFSRSKSDNSSHPQKD 363
                                                                                                                                                                                                                                                                                                                                                                                                                          193 YVLFCYLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRARRFRSLALLRT 252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LSVVL;AFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSLLNPIIYTLTNRD .312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  313 LRHALLREVCCGRHSCGRDPSGSQQSASAAEASGGLRRCLPPGLDGSFSGSERSS-PQRD 371
                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                             73 LLLGSUTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLSLLAIALE 132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     133 RSLTMÄRRGPAPVSSRGRTLAMAAAWGVSLLLGLLPALGWNCLGRLDACSTVLPLYAKA 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              73 LLLGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLSLLAIALE 132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           13 EVIVLHYNYTGKLRGARYQPGAGLRADAVVCLAVCAFIVLENLAVLLVLGRHPRFHAPMF 72
                                                                                                                                                                                                                                                                                                                                23 DIIVRHYNYTGKLNISADKENS-IKLISVVFILICCFIILENIFVLLTIWKTKKFHRPMY 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    13 EVIVLHYNYTGKLRGARYQPGAGLRADAVVCLAVCAFIVLENLAVLLVLGRHPRFHAPMF 72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20;
                                                                                                                                                                                                               Length 381;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 381;
                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
41.3%; Score 834; DB 3; Length 38
Best Local Similarity 46.8%; Pred. No. 7.8e-57;
Matches 174; Conservative 68; Mismatches 110; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
APPLICANT: L. et al.
TILLE OF INFORMATION:
FILLE REFERENÇE: 14489.1220000
                                                                                                                                                                                                           ; Score 834; DB 2; L; Pred. No. 7.8e-57; 68; Mismatches 110;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION NUMBER: US/08/852,824C CURRENT FILING DATE: 1997-05-04 NUMBER OF SEQ ID NOS: 18 SOFTWARE: PATENTIN VEr. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 18, Application US/08852824C
Patent No. 6060272
                                                                                                                                                                                                        Query Match
Best Local Similarity 46.8%;
Matches 174; Conservative 66
                                                                    SS: single
not relevant
SEQUENCE CHARACTERISTICS LENGTH: 381 amino acid
                                                                                                           MOLECULE TYPE: peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          372 GLDTSGSTGSPG 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         364 EGDNPETIMSSG 375
                                              amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ORGANISM: genomic
US-08-852-824-18
                                                               STRANDEDNESS:
TOPOLOGY: not
                                                                                                                                      US-08-467-948A-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   US-08-852-824-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQ ID NO 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH:
```

```
Best Local Similarity 46.88
Matches 174; Conservative
                                                            ð
                                                                                            엄
                                                                                                                               ò
                                                                                                                                                              a
                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
133 RSLTWARRGPAPVSSRGRTLAMAAAAWGVSLLLGLLPALGWNCLGRLDACSTVLPLYAKA 192
                                                                                               202 YILFCTIVFILLISIVILYCRIYSLVRIRSRRLIFRKNI----SKASRSSENVALLKT 256
                                                                                                                                                            LRHALLRIVCCGRHSCGRDPSGSQQSASAAEASGGLRRCLPPGLDGSFSGSERSS-PQRD 371
                                                                                                                                                                                                                                193 YVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRARRKPRSLALLRT
                                                                                                                                        253 LSVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSLLNPIIYTLTNRD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Polynucleotides Encoding Human G-Protein
Coupled Receptor GPR1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      E: STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
1100 NEW YORK AVE., NW, SUITE 600
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: PATENTIN RELEASE #1.0, VERSION #1.30 CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/467,947A FILING DATE: 06-UNN-1995 CLASSIFCATION: 435 PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/US95/04079 FILING DATE: 30-MAR-1995 ATTORNEY/AGENT INFORMATION:
NAME: STEFFE, ERIC K.
REGISTRATION NUMBER: 36,688
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1488.1140002/EKS/KLM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NI, JIAN
SENTZ, REINER
BULT, CAROL J.
SUTTON III, GRANGER G.
ROSEN, CRAIG A.
                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 28, Application US/08467947A Patent No. 6090575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ELECOMMUNICATION INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          381 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRANDEDNESS: single
TOPOLOGY: not relevant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: 202-371-2540 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                        I, YI
AO, LIANG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER READABLE FORM:
MEDIUM TYPE: FLOPPY
                                                                                                                                                                                                                                                                              372 GLDISGSTGSPG 383
                                                                                                                                                                                                                                                                                                                364 EGDNPETIMSSG 375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WASHINGTON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: amino acid
STRANDEDNESS: sin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; MOLECULE TYPE:
US-08-467-947A-28.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20005
                                                                                                                                                                                                                                                                                                                                                                 RESULT 6
US-08-467-947A-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STREET:
                                                                                                                                                                                                            313
 ò
                                 셤
                                                                    ò
                                                                                                   셤
                                                                                                                                          à
```

Length 381;

DB 3;

41.3%; Score 834;

Query Match

```
193 YVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRARRKPRSLALLRT 252
                                                                                                                                                  73 LLLGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLSLLAIALE 132
                                                                                                                                                                              133 RŠLTMARRGPAPVSSRGRTLAMAAAAWGVSLLLGLLPALGWNCLGRLDACSTVLPLYAKA 192
                                                                                                                                                                                                                                                                                                                                                          253 LÄVVILAFVACWGPLFILLILDVACPARTCPVLLQADPFIGLAMANSLINPIIYTLTNRD 312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   317 MRRAFIRIM----SCCKCPSG-------DSAGKFKRPIIAGMEFSRSKSDNSSHPQKD 363
                                                              13 EVIVLHYNYTGKLRGARYQPGAGLRADAVYCLAVCAFIVLENLAVLLVLGRHPRFHAPMF 72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          313 LRHALLRIVCCGRHSCGRDPSGSQQSASAAEASGGLRRCLPPGLDGSFSGSERSS-PQRD 371
                                                                                            23 DIIVRHYNYTGKLNISADKENS-IKLTSVVFILICCFIILENIFVLLTUWKTKKFHRPMY 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICÁNT: Au-Young, Janice
APPLICÁNT: Bandman, Olga
APPLICÁNT: Seilhamer, Jeffrey J.
IITLE ÓF INVENTION: A NOVEL HUMAN EDG-2 RECEPTOR HOMOLOG
NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
                           Indels
46.8%; Pred. No. 7.8e-57;
tive 68; Mismatches 110;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AUDRESSEE: Incyte Pharmaceuticals, Inc. STREET: 3174 Porter Drive CITY; Palo Alto
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OPERATING SYSTEM: DOS
SOFTWARE: FEACEGO Version 1.5
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US96/106.
CLASSIFICATION DATA:
PRIOR APPLICATION DATA:
PRIOR APPLICATION DATA:
FILING DATE: 20-JUN-1995
FILING DATE: 20-JUN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Application PC/TUS9610618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: 08/567,817
FILING DATE: 06-DEC-1995
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME: Glaister, Debra J.
REGISTRATION NUMBER: 33,888
REFERENCE/DOCKET NUMBER: PF
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-855-0555
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ZIP: 94304
COMPUTER READABLE FORM:
MEDIUM TYPE: DISKette
COMPHITER: IBM COMPATIBLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILING DATE: 20-JUN-1
PRIOR APPLICATION DATA:
APPLICATION NUMBER: (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              372 GLDTSGSTGSPG 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          364 EGDNPETIMSSG 375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Guegler,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    OPERATING SYSTEM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 4, Applicat:
GENERAL INFORMATION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PCT-US96-10618-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CITY:
```

```
287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                    73 LLIGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLSLLAIALE 132
                                                                                                                                                                                                                                                                                                                                                                                                                                             82 YFIGNLALSDLLAGVAYTANLLLSGATTYRLTPAQWFLREGSMFVALSASVFSLLAIAIE 141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         133. RSLIMARRGPAPVSSRGRTLAMAAAAWGVSLLLGLLPALGWNCLGRLDACSTVLPLYAKA 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             253 LSVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSLLNPIIYTLTNRD 312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        313 LRHALLRLVCCGRHSCGRDPSGSQQSASAAEASGGLRRCLPPGLDGSFSGSERSS-PQRD 371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                                                                                                                                33 DIIVRHYNYTGKLNISADKENS-IKLTSVVFILICCFIILENIFVLLTIWKTKKFHRPNY 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
APPLICANT: Murphy, Randall B.
APPLICANT: Schuster, David II.
TITLE OF INVENTION: POLYEPTIDES OF G-COUPLED PROTEIN
TITLE OF INVENTION: RECEPTORS, AND COMPOSITIONS AND METHODS THEREOF
NUMBER OF SEQUENCES: 348
CORRESPONDENCE ADDRESS:
ADDRESSEE: BROWDY AND NEIMARK
                                                                                                                                                                                                                                                                                                                                           13 EVIVLHYNYTGKLRGARYQPGAGLRADAVVCLAVCAFIVLENLAVLLVLGRHPRFHAPMF 72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              193 YVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRARRKPRSLALLRT
                                                                                                                                                                                                                                                                                                          20;
                                                                                                                                                                                                                                                              41.3%; Score 834; DB 5; Length 381;
46.8%; Pred. No. 7.8e-57;
ive 68; Mismatches 110; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SYSTEM: PC-DOS/MS-DOS
PatentIn Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             419 Seventh Street, N.W., Suite 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: US 07/943,236
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/118,270
FILING DATE: 09-SEP-1993
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 73, Application US/08118270
Patent No. 5508384
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDIUM TYPE: Floppy disk COMPUTER: IBM PC COMPATIBLE OPERATING SYSTEM: PC-DOR/MG-
INFORMATION FOR SEQ ID NO: 'SEQUENCE CHARACTERISTICS:
LENGTH: 381 amino acids
TYPE: amino acids
STRANDEDNESS: single
                                                                               STRANDEL
TOPOLOGY: linear
MOLECULE TYPE: peptide
IMMEDIATE SOURCE:
LIBRARY: GenBank
~**TANE: 119130
                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 46.8
Matches 174; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ZIP: 20004
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       372 GLDTSGSTGSPG 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               364 EGDNPETIMSSG 375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Washington
                                                                                                                                                                                 COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STATE:
                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
```

```
100 TLKLSPALWFAREGGVFVALTASVLSLLAIALERSLIMAR---RGPAPVSSRGRTLAMAA 156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      157 AAWGYSLLLGLLPALGWNCLGRLDACSTVLPLYAKAYVLPCVL-AFVGILAAICALYARI 215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   216 YCQVFANARRLPARPGTAGTTSTRARRKPRSLALLRTLSVVLLAFVACWGPLFLLLLLLDV 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   179 YSLVETRSRRLTFRKNI-----SKASRSSENVALLKTVIIVLSVFIACWAPLFILLLLDV 233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               276 ACPARTCPVLLQADPFLGLAMANSLLNPIIYTLTNRDLRHALLRLVCCGRHSCGRDPSGS 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  234 GCKVRTCDILFRAEYFLVIAVINSGINPIIYTLINKEMRRAFIRINCC------KCPSG- 286
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           40 AVVCLAVCAFIVLENLAVLLVLGRHPRFHAPMFLLLGSLTLSDLLAGAAYAANILLSGPL 99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3 SVVFILICCFILLENIEVLLTIWKTKKFHRPMYYFIGNIALSDLIAGVAYTANLLLSGAT 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: New York University
TITLE OF INVENTION: POLYPETIDES OF G-COUPLED PROTEIN
TITLE OF INVENTION: RECEPTORS, AND COMPOSITIONS AND METHODS THEREOF
NUMBER OF SEQUENCES: 348
CORRESPONDENCE ADDRESS:
ADDRESSEE: BROWDY AND NEIMARK
STREET: 419 Seventh Street, N.W., Suite 300
                                                                                                                                                                                                                                                                                                                                                                                                                 ; Score 776; DB 1; Length 334;
; Pred. No. 1.9e-52;
64; Mismatches 95; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              336 QQSASAAEASGGLRRCLPPGLDGSFSGSERSS-PQRDGLDTSGSTGSPG 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
FLIANG DATE: 09-SEP-1993
NAME: Townsend, Kevin G.
REGISTRATION NUMBER: 34,033
REGISTRENGE/DOCKET NUMBER: MURPHY-2A
TELECOMMUNICATION:
TELEPHONE: 202-628-5197
TELEFRAX: 202-737-3528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 73, Application PC/TUS9308528 GENERAL INFORMATION:
                                                                                                                                                                             73:
                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity 46.4%;
Matches 162; Conservative 66
                                                                                                                                                                                                                       LENGTH: 334 amino acids TYPE: amino acid
                                                                                                                                                 TELEX: 248633
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                          single
                                                                                                                                                                                                                                                                                                               ; MOLECULE TYPE: peptide US-08-118-270-73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DATE: 09-SEP-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CITY: Washington STATE: D.C. COUNTRY: USA
                                                                                                                                                                                                                                                                                                linear
                                                                                                                                                                                                                                                                STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ZIP: 20004
                                                                                                                                                                                                                                                                                                TOPOLOGY:
```

```
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     d
                                                                                                                                                                                                                                                                                                                                                           7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           157 AAWGVSLLLGLLPALGWNCLGRLDACSTVLPLYAKAYVLFCVL-AFVGILAAICALYARI 215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                216 YCQVRANARRLPARPGTAGTTSTRARRRPRSLALLRTLSVVLLAFVACWGPLFLLLLLLDV 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  276 ACPARTCPVLLQADPFLGLAMANSLLNPIIYTLTNRDLRHALLRLVCCGRHSCGRDPSGS 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 234 GCKVKTCDILFRAEYFLVIAVINSGTNPIIYTLTNKEMRRAFIRIMCC-----KCPSG- 286
                                                                                                                                                                                                                                                                                                                                                                                                                                                           100 TLKLSPALWFAREGGVFVALTASVLSLLAIALERSLTMAR---RGPAPVSSRGRTLAMAA 156
                                                                                                                                                                                                                                                                                                                                                                                                            40 AVVCLAVCAFIVLENLAVLLVLGRHPRFHAPMFLLLGSLTLSDLLAGAAYAANILLSGPL 99
                                                                                                                                                                                                                                                                                                                       38.4%; Score 776; DB 5; Length 334; 46.4%; Pred. No. 1.9e-52;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      336 QQSASAAEASGGLRRCLPPGLDGSFSGSERSS-PQRDGLDTSGSTGSPG 383
                                                                                                                                                                                                                                                                                                                                                          95; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: DISKette
COMPUTER: IBM Compatible
OFBRATING SYSTEM: DOS
SOFTWARE: FASTSEE OF Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/082,088
FILING DATE: 20-MAY-1998
                                                                                                                                                                                                                                                                                                                                                          64; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
APPLICANT: TSGI, PING
TITLE OF INVENTION: HUMAN EDG3SD GENE
NUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
ADDRESSE: Rather & Prestia
STREET: P.O. Box 980
CITX: Valley Forge
                                                                MURPHY-2 PCT
              ATTORNEY/AGENT INFORMATION:
NAME: TOWNSEND, KV1D G.
REGISTRATION NUMBER: 34,033
REFERENCE/DOCKET NUMBER: MURP!
TELECOMMUNICATION INFORMATION:
TELEPHONE: 202-628-5197
TELEPHONE: 202-737-3528
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 2, Application US/09082088
Patent No. 6130067
                                                                                                                               TELEX: 248633
INPORMATION FOR SEQ ID NO: 73:
SEQUENCE CHARACTERISTICS:
LENGTH: 334 amino acids
TYPE: amino acids
STRANDEDNESS: single
TOPOLOGY: linear
10-SEP-1992
                                                                                                                                                                                                                                                                                                                                      Best Local Similarity 46.4 Matches 162; Conservative
                                                                                                                                                                                                                                    TOPOLOGY: 11near
MOLECULE TYPE: peptide
PCT-US93-08528-73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE: 2
CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ZIP: 19482
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STATE: PA
COUNTRY: U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-082-088-2
                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                     요
                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
```

```
66 RFHAPMFLLLGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLS 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    LLAIALERSLIMARRGPAPVSSRGRILAMAAAWGVSLLLGLLPALGWNCLGRLDACSTV 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LPLYAKAYVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRARRPR 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           246 SLALLRILSVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSLLNPII 305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6 LRPAPVSEVIVLHYNYTGKLRGARYQPGAGLRADAVVCLAVCAFIVLENLAVLLVLGRHP 65
                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 378;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  306 YILINRDLRHALLRLVCCGRHSC---GR------DPSGSQQSAS 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                298 YILASKEMRRAFFRLVC----NCLVRGRGARASPIQPALDPSRSKSSSS 342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
APPLICANT: MacLennan, A. John
TITLE OF INVENTION: Molecular Cloning and Expression of
TITLE OF INVENTION: GProtein Coupled Receptors
NUMBER OF SEQUENCES: 14
CORRESPONDENCE ADDRESS:
ADDRESSEE: Saliwanchik & Saliwanchik
STREET: 2421 N W. 41st Street, Suite A-1
CITY: Gainesville
                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 38.4%; Score 774.5; DB 4; Best Local Similarity 44.7%; Pred. No. 2.9e-52; Matches 156; Conservative 55; Mismatches 109;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/NS-DOS
SOFTWARE: PATENTIN Release #1.0, Ver
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/196,989B
FILING DATE: 15-FEB-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 2, Application US/08196989B Patent No. 5585476
                                                              REFERENCE/DOCKET NUMBER: GF
TELECOMMUNICATION INFORMATION:
TELEPHONE: 610-407-070
TELEFEX: 610-407-070
                                                                                                                                                              TELEX:
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 378 amino acids
TYPE: amino acid
STRANDEDNESS: single
ATTORNEY/AGENT INFORMATION:
                           NAME: Prestia, Paul F
REGISTRATION NUMBER: 2
                                                                                                                                                                                                                                                                                                                               ; MOLECULE TYPE: protein US-09-082-088-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COUNTRY: US
ZIP: 32606
COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                           linear
                                                                                                                                                                                                                                                                                                           TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 11
US-08-196-989B-2
```

```
243 KPRSLALLRTLSVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSLLN 302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                123 VLSLLAIALERSLTMARRGPAPVSSRGRTLAMAAAAWGVSLLLGLLPALGWNCLGRLDAC 182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           183 STVLPLYAKAYVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRARR 242
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                226 -PQTLALLKTVIVLGVFIICWLPAFSILLLDSTCPVRACPVLYKAHYFFAFATLNSLLN 284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             6 SEVINPERVQE----HYNYTKETLDMQETPSRKVASAFIIIL--CCAIVVENLIVLIAVA 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         303 PIIYTLTNRDLRHALLRLVCC---GRHSCGRDPSGSQQSASAAEASGGLRRCL----PP 354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3 SGLLRPAPVSEVIVLHYNYTGKLRGARYQPGAGLRADAVVCLAVCAFIVLENLAVLLVLG 62
                                                                                                                                                                                                                                                                                                                                                                                                               Length 352;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
APPLICANT: MacLennan, A. John
TITLE OF INVENTION: Molecular Cloning and Expression of
TITLE OF INVENTION: G-Protein Coupled Receptors
NUMBER OF SEQUENCES: 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                        48; Mismatches 122;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                     .4e-49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE: Saliwanchik, Lloyd & Saliwanchik STREET: 2421 N.W. 41st Street, Suite A-1 CITY: Gainesville
                                                                                                                                                                                                                                                                                                                                                                                                        Ouery Match 36.3%; Score 732.5; Best Local Similarity 45.5%; Pred. No. 4.4 Matches 166; Conservative 48; Mismatches
                                          NAME: Lloyd, Jeff
REGISTRATION NUMBER: 35,589
REGISTRACFOCKET NUMBER: MAC-100
TELECOMMUNICATION INFORMATION:
TELEPHONE: 904-375-8100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STAIL.
COUNTRY: US
ZIP: 32606
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
MEDIUM TYPE: Floppy disk
MEDIUM TYPE: FLOPPY disk
MEDIUM TYPE: FLOPPY disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 2, Application US/08760936
Patent No. 5856443
                                                                                                                                                        TELEFAX: 904-372-5800
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
CLASSIFICATION: 536
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                        LENGTH: 352 amino acids
TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                MOLECULE TYPE: peptide US-08-196-9898-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION DATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS: ADDRESS:
                                                                                                                                                                                                                                                                                             TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            345 FLEGN 349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   355 GLDGS 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 12
US-08-760-936-2
```

В

```
63 RHPRFHAPMFLLLGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTAS 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             243 KPRSLALLRTLSVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSLLN 302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PIIYTLTNRDLRHALLRLVCC---GRHSCGRDPSGSQQSASAAEASGGLRRCL----PP 354
                                                                                                                                                                                                                                                                                                                                                                                                                                6 SEYLNPEKVQE----HYNYTKETLDMQETPSRKVASAFIIL---CCAIVVENLLYLIAVA 59
                                                                                                                                                                                                                                                                                                                                                                                                      3 SGLLRPAPVSEVIVLHYNYTGKLRGARYQPGAGLRADAVVCLAVCAFIVLENLAVLLVLG 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             123 VLSLLAIALERSLIMARRGPAPVSSRGRILAMAAAAWGVSLLLGLLPALGWNCLGRLDAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       183 STVLPLYAKAYVLFCVLAFVGILAAICALYARIYCOVRANARRLPARPGTAGTTSTRARR
                                                                                                                                                                                                                                                                                                                                   Length 352;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: Human G-Protein Coupled Receptors
FILE REFERENCE: 1488.1220000
CURRENT APPLICATION UNBER: US/08/852,824C
CURRENT FILING DATE: 1997-05-04
NUMBER OF SEQ ID NOS: 18
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 4
                                                                                                                                                                                                                                                                                                                                     DB 2;
                                                                                                                                                                                                                                                                                                                                                      4e-49
                                                                                                                                                                                                                                                                                                                      36.3%; Score 732.5;
45.5%; Pred. No. 4 4
                                                                                 REFERENCE/DOCKET NUMBER: MAC-100C1
TELECOMMUNICATION INFORMATION:
TELEPHONE: 352-375-8100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 4, Application US/08852824C
Patent No. 6060272
GENERAL INFORMATION:
December 6, 1996
                                                                                                                                                                                                                                                                                                                                                                    48;
                             ATTORNEY/AGENT INFORMATION:
NAME: Pace, Doran R.
REGISTRATION NUMBER: 38,2
                                                                                                                                     TELEFAX: 352-372-5800
INFORMATION FOR SEQ ID NO: 2:
                                                                                                                                                                                          : 352 amino acids
amino acid
                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity 45.5
Matches 166; Conservative
                                                                                                                                                                                                                             single
                                                                                                                                                                                                                                                           MOLECULE TYPE: peptide
                                                                                                                                                                                                                                            linear
            CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: Li et al
                                                                                                                                                                                                                        STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ; ORGANISM: genomic
US-08-852-824-4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                345 FLEGN 349
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              355 GLDGS 359
                                                                                                                                                                                       LENGTH:
                                                                                                                                                                                                                                                                              US-08-760-936-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT 13
US-08-852-824-4
                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
```

DB 3; Length 384;

31.3%; Score 631.5;

Query Match

```
ERSLTMARRGPAPVSSRG----RTLAMAAAAWGVSLLLGLLPALGWNCLGRLDACSTVL 186
                                                                                                                                                                                                                                                                                                                                                                                                142 ERFATMVR----PVAESGATKTSRVYGFIGLCWLLAALLGMLPLLGWNCLCAFDRCSSLL 197
                                                                                                                                                                                                                                                                                                                                                                                                                                           PLYAKAYVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRARRPRS 246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   72 FILLGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLSLLAIAL 131
                                                                                                                                                                                    12 SEVIVLHYNYTGKLRGARYQPGAGLRADAVVCLAVCAFIVLENLAVLLVLGRHPRFHAPM 71
                                                                                                                                                                                                                 22 SKLIXLHYNHSGRLAGRGPEDGGLGALRGLSVAASCLVVLENLLVLAAITSHMRSRRWV 81
                                                                                                                                            20;
                                                                                                 Length 509;
                                                                                                                                            84; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                E: Nikaido, Marmelstein, Murray and Oram 655 15th Street, N.W., Suite 330 - G St.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: CHUN, Jerold J.M.
APPLICANT: HECHT, JONACHAN H.
TITLE OF INVENTION: CLONED LYSOPHOSPHATIDIC ACID
TITLE OF INVENTION: RECEPTORS
NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC_Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                    27.1%; Score 548; DB 2;
46.2%; Pred. No. 9.6e-35;
tive 37; Mismatches 84.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/763,938
FILING DATE: 12-DEC-1996
CLASSIFFCATION: 800
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 2, Application US/08763938
Patent No. 6140060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   248 -FLLKTVLMILLAFLVCWGPLF 268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           247 LALLRILSVVLLAFVACWGPLF 268
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION:
NAME: JAHNS, Kristina M.
REGISTRATION NUMBER: 41,092
REFERENCE/DOCKET NUMBER: P8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FELECOMMUNICATION INFORMATION TELEFHONE: (202) 638-5000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY: USA
ZIP: 20005-5701
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELEFAX: (202) 638-4810
INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGIH: 364 amino acids
TYPE: amino acid
                                                                                                 Query Match
Best Local Similarity 46.2%
Matches 121; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              , MOLECULE TYPE: peptide US-08-763-938-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STREET: 652 TTY: Washington
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              linear
                 144690
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE:
LIBRARY:
                    ; CLONE: 1
US-08-845-566-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-08-763-958-2
                                                                                                                                                                                                                                                                                                                                                        132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   198
                                                                                                                                                                                                                                                                                                                                                                                                                                           187
                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                        δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   음
                                                                                                                                                                                                                                                                                                                                                                                                                                           ä
                    7;
                                                                                                                                                                                                                                                                                                                                                                                                                       142 LRFATWVR----PVAESGATKTSRVYGFIGLCWLLAALLGWLPLLGWNCLCAFDRCSSLL 197
                                                                                                                                                                                                                                                                                                              187 PLYAKAYVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRARRKPRS 246
                                                                                                                                                                                                                                                                                                                                       247 LALLRTLSVVLLAFVACWGPLFILLLLDVACPARTCPVLLQA-DPFLGLAMANSLLNPII 305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 306 YTLTNRDLRHALLRLVCCGRHSCGRDPSGSQQSASAAEASGGLRRCLPPGLDGSFSGSER 365
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -----CLRLGMRGPGDCLAR 340
                                                                                                                                         72 FLLLGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLSLLAIAL 131
                                                                                                                                                                  82 YYCLVNITMSDLLTGAAYLANVLLSGARTFRLAPAQWFLRKGLLFTALAASTFSLLFTAG 141
                                                                                                                                                                                                                            132 ERSLIMARRGPAPVSSRG----RTLAMAAAWGVSLLLGLLPALGWNCLGRLDACSTVL 186
                                                                                        22 SRLIVLHYNHSGRLAGREGPEDGGLGALRGLSVAASCLVVLENLLVLAAITSHMRSQRWV 81
                                                            12 SEVIVLHYNYTGKLRGARYQPGAGLRADAVVCLAVCAFIVLENLAVLLVLGRHPRFHAPM 71
Best Local Similarity 40.1%; Pred. No. 2.7e-41; Matches 151; Conservative 52; Mismatches 127; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: DISKETTE
COMPUTER: IBM COmpatible
OFBRATING SYSTEM: DOS
SOFTWARE: FastSEC for Windows Version 2.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/845,566
FILING DATE: Filed Herewith
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 14
US-08-845-566-1
is Sequent No. 5912144
is GENERAL INFORMATION:
APPLICANT: Au-Young, Janice
APPLICANT: Au-Young, Janice
ITTLE OF INVENTION: EDG-1 LIKE RECEPTOR
CORRESPONDENCES:
CORRESPONDENCE ADDRESS:
ADDRESSEE: Incyte Pharmaceuticals, Inc.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STREET: 3174 Porter Drive CITY: Palo Alto COUNTY: CA COUNTY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Billings, Lucy J.
REGISTRATION NUMBER: 36,749
REFERENCE,DOCKET NUMBER: PF-0
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-855-0555
TELEFAX: 415-845-4166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1: :|:: |:|
307 YSFRSREVCRAVLSFLCCG----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: 415-845-4100
INFORMATION FOR SEQ ID NO: 1
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   366 SSPQRDGLDTSGSTGSP 382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           341 AVEAHSGASTTDSSLRP 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGIH: 509 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA: APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY: 11ne
IMMEDIATE SOURCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            94304
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      COUNTRY:
                                                                                                                                         ö
                                                                                                                                                                               셤
                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
```

```
5,
                                                                                                                            RFHAPMFLLLGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLS 125
                                                                                                                                                                                                                186 LPLYAKAYVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRARRKPR 245
                                                                                                                                                                                    Gaps
                                         12 SEVIVLHYNYTGKLRGARYQP-----GAGLRADAVVCLAVCAFIVLENLAVLLVLGRHP 65
                                                         Ouery Match
25.7%; Score 518.5; DB 4; Length 364;
Best Local Similarity 34.1%; Pred. No. 1.2e-32;
Matches 115; Conservative 70; Mismatches 129; Indels 23;
                                                                                                                                                                                                                                                          306 YTLTNRDLRHALLRLVCCGRHSCGRDPS-GSQQSASA 341
                                                                                                                                                                                                                                                                         |: :::: | |: || :|| |: || 311 YSYRDKEMSATFRQILCCQRNENPNGPTEGSDRSASS 347
                                                                                                       19
                                                                                     99
                                            à
                                                              සි
                                                                                                      g
                                                                                                                                              g
                                                                                                                                                                    ò
                                                                                                                                                                                         g
                                                                                                                                                                                                                 ò
                                                                                     ð
                                                                                                                             õ
                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                         ò
```

Search completed: January 16, 2002, 23:40:02 Job time: 2159 sec

```
GenCore version 4.5
Copyright (c) 1993 - 2000 Compugen Ltd.
                                                                                             OM protein - protein search, using sw model
                                                                                                                                            Run on:
```

January 16, 2002, 23:35:18; Search time 65.2 Seconds (without alignments) 464.992 Million cell updates/sec US-09-842-316-2 2019 1 MESGLLRPAPVSEVIVLHYN.....TGSPGAPTAARTLVSEPAAD 398 Title: Perfect score: Sequence:

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

Total number of hits satisfying chosen parameters: 219241 seqs, 76174552 residues Searched:

219241

Minimum DB seq length: 0 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

PIR_68:*
1: pirl:*
2: pir2:*
3: pir3:*
4: pir4:* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

το.	Description	Eda-1 orohan	=	sphingosine 1-phos	G protein-coupled	probable G protein	lysophosphatidic a	G protein-coupled	G protein-coupled		cannabinoid recept	G protein-coupled	cannabinoid recept	probable G protein	cannabinoid recept	melanocortin-5 rec	beta-1-adrenergic	melanocyte-stimula	melanocortin 5 rec	melanocortin recep	cannabinoid recept	melanocortin recep	beta-1-adrenergic	melanocortin recep	beta 1 adrenera1c	melanocortin recep	melanocortin recep	beta-1-adreneraic	melanocortin 3 rec	beta-4C-adrenergic
SUMMARIES	D	153870	A35300	JC7559	JC5245	JC1465	JC5293	E48909	A55689	S40454	A33117	165990	S17595	S48697	S36750	I49008	S36794	I46416	JC5592	JC2193	S70364	A57055	S12591	JN0764	153053	B46647	836636	QRHUB1	S43850	A55044
	DB	~	7	e	ď	~	N	~	~	7	7	7	7	~	7	7	~	~	~	~	~	ď	~	~	~	~	~	ч	7	7
	g Ouery Match Length	383	381	362	378	352	364	180	330	330	473	362	472	363	360	372	466	325	325	325	347	332	4 6 4	325	480	360	323	477	323	428
•	Query Match	42.3	41.3	40.4	38.4	36.3	ທີ	21.8	17.7	7	ė	'n.	15.4	'n.	4	÷.	÷	۳.	ω.			ന	m.		e,	13.1	m.	·.	12.8	12.8
	Score	853.5	834	815.5	774.5	732.5	506.5	440.5	357		325.5	318	310	308	289.5	282.5	282	281.5	278	275	273.5	273	272.5	272	267	264		•	259	'n
	Result No.		7	m	4	5	9	7	8	5	10	11	12	13	14	15	16	17	18	19	50	21	22	23	24	22	56	. 27	28	29

ò g RESULT

serotonin receptor beta-3-adreneraic	serotonin receptor	serotonin receptor G protein-coupled	serotonin receptor	serotonin receptor	melanocyte stimula	serotonin receptor	serotonin receptor	beta-3-adrenergic	alpha-1A adrenergi	serotonin receptor	5-hydroxytryptamin	serotonin receptor	alpha-1B adrenerg1
JC5520 S65459	177467	S18444	S18637	S54153	T12055	1688	JN0268	G02953	A38731	558126	157942	203	121
36	177	SIE	S18	S 24	ij	A	Š	G 05	A38	S58	157	T42	A45
2 300	2 177	2 516	2 S18	2 \$54	2 T1;	2 A42	2 JN0	2 G02	2 A38	2 558	2 157	2 T42	2 A45
440 2 JC	~ ~	9 (9	7	~	7	~	~	~	~	7	437 2 157	7	517 2 A45
00	~ ~	3 320 2	3 386 2	~	2 317 2	1 386 2	390 2	418 2	2 099	390 2	~	445 2 1	
00	12.5 374 2	12.3 320 2	12.3 386 2	12.2 386 2	12.2 317 2	12.1 386 2	12.1 390 2	418 2	12.1 560 2	390 2	12.0 437 2]	445 2 1	11.9

ALIGNMENTS

hange 24-Sep-1999 Lennan, A.J. pression pattern suggests d 3.1; PID:g595397	Length 383; Indels 19; Gaps 5; LLVLGRHPRHAPMF 72 :: : LLTIWKTKKFHRPMY 82 ALTASVLSLLAIALE 132	ASVFSLLAIAIE 142 ACSTVLPLYAKA 192
RESULT 1 123870 Edg-1 Orphan receptor - rat C;Species: Rattus norvegicus (Norway rat) C;Species: Rattus norvegicus (Norway rat) C;Species: Rattus norvegicus (Norway rat) C;Date: 29-May-1998 #sequence_revision 29-May-1998 #text_change 24-Sep-1999 C;Accession: IS3870 R;Lado, D.C.; Browe, C.S.; Gaskin, A.A.; Borden, J.M.; MacLennan, A.J. R;Lado, D.C.; Browe, C.S.; Gaskin, A.A.; Borden, J.M.; MacLennan, A.J. A;Tile: Cloning of the rat edg-1 immediate-early gene: expression pattern suggests A;Reference number: IS3870; MUID:95047498 A;Accession: IS5870 A;Accessio	42.3%; Score 853.5; DB 2; Length 383;	83 YFIGHLALBALAGVAYTANLLLSGATTYKLTPAQWFLREGSMFVALSASVFSLLAIAIE 142 133 RSLTMARRGPAPVSSRGRILAMAAAAWGVSLLLGLLPALGWNCLGRLDACSTVLPLYAKA 192 13 I:
RESULT 153870 153870 C, Spec C, Date C, Date M, Lado G, Date M, Talt M, Refe M, Staff M, Staff M, Staff C, Supec C, Supec C, Supec C, Supec C, Spec M, Staff C, Spec C, Spec C, Spec M, Staff C, Spec C, Spec M, Spec C, Spec	Our Bee Ma Ma Oy Oy	6

7;

27;

Length 362;

```
Grotein-coupled receptor - human
C;Species: Homo saptens (man)
C;Species: Homo recent revision 25-Apr-1997 #text_change 20-Jun-2000
C;Accession: JG5245
R;Yamaguchi, F.; Tokuda, M.; Hatase, O.; Brenner, S.
Biochem. Blochen, Blochen, Commun. 277, 608-614, 1996
A;Title: Molecular cloning of the novel human G protein-coupled receptor (GPCR) gene
A;Reference number: JG5245
A;Accession: JG5245
A;Accession: JG5245
A;Residues: 1-378 
A;Residues: L-378 
A;Residues: L-378 
A;Cross-references: EMBL: 883864; NID: 91770395; PIDN: CAAS8744.1; PID: 91770396
C;Comment: This protein transduces hormone and neurotransmitter signals into intracel
C;Genetics:
A;Gene: edg-3
A;Gene: edg-3
A;Map postilion: 9422.1-422.2
C;Superfamily: G protein-coupled receptor
C;Keywords: G protein-coupled receptor
                                                                                                                                                                                                                                                                       71 MFLLLGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLSLLAIA 130
                                                                                                                                                                                                                                                                                                248 ALLRILSVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSLLNPIIYT 307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 LERSITMARRGPAPVSSRGRT---LAMAAAAWGVSLLLGLLPALGWNCLGRLDACSTVLP 187
                                                                                                                                                                                                                                                                                                                                                                                                                                                           LYAKAYVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRARRPRSL 247
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              66 RFHAPMFLLLGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLS 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                11 VSEVIVLHYNYTGKLRGARYQPGAGLRADAVVCLAVCAFIVLENLAVLLVLGRHPRFHAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 308 LINRDLRHALLRLVCCGRHSCGRDPSGSQQSASAAEASGGLRRCLPPGLDGSFSGSERSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6 LRPAPVSEVIVLHYNYTGKLRGARYQPGAGLRADAVVCLAVCAFIVLENLAVLLVLGRHP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         LLAIALERSLIMARRGPAPVSSRGRTLAMAAAAWGVSLLLGLLPALGWNCLGRLDACSTV
                                                                                 40.4%; Score 815.5; DB 3; Length 47.1%; Pred. No. 1e-55; ive 59; Mismatches 107; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
              C; Keywords: G protein-coupled receptor; transmembrane protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          38.4%; Score 774.5; DB 2;
44.7%; Pred. No. 1.5e-52;
tive 55; Mismatches 109;
                                                                                 Query Match
Best Local Similarity 47.1%
Matches 172; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best_Local Similarity 44.79
Matches 156; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            368 -FQRD 371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        338 HENKD 342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                   59
                                                                                                                                                                                                                                                                                                                                                                131
                                                                                                                                                                                                                                                                                                                                                                                                                                                           188
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       129
                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                         å
                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  쉽
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          οy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
Grotein coupled receptor edg-1 - human
C; Species: Homo sapiens (man)
C; Species: A35300
R; Hila, T; Macdiag, 1990
R; Hila, T; Macdiag, 1990
R; Hile: An abundant transcript induced in differentiating human endothelial cells encod A; Title: An abundant transcript induced in differentiating human endothelial cells encod A; Molecule type: mRNA
A; Residues: 13300
A; Molecule type: mRNA
A; Residues: 1381 < HLA>
A; Cross-references: GB: M31210; NID: 9181948; PIDN: AAA52336.1; PID: 9181949
C; Genetics: A; Genetics: A; Genetics: GB: M31210; MM: 131222
A; Map position: 22q13-22q13
C; Superfamily: G protein-coupled receptor: 91ycoprotein; transmembrane prot
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Title: Characterization of a zebrafish (Danio rerio) sphingosine 1-pnospnate receptor A;Reference number: UC7559; MUID: 20563813
A;Reference number: UC7559; MUID: 20563813
A;Molecule type: DNA
A;Residues: 1-362 < IMA>
A;Residues: 1-362 < IMA>
A;Cross-references: GB+R7321294
C;Comment: This receptor, a G protein-coupled receptor, mediates sphingosine 1-phosphate or also functions in the developing central nervous system in cell proliferation, apoptic C;Genetics:
A;Gene: edg1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sphingosine 1-phosphate receptor - zebra fish
NyAlternate names: endothelial differentiation gene 1 receptor
NyAlternate names: endothelial differentiation gene 1 receptor
Syspecies: Brachydanio rerio (zebra fish)
C;Dete: 31-Mar-2001 #sequence_revision 31-Mar-2001 #text_change 31-Mar-2001
C;Date: 31-Mar-2001 #sequence_revision 31-Mar-2001
R;Im, D.S.; Ungar, A.R.; Lynch, K.R.
Biochem. Biophys. Res. Commun. 279, 139-143, 2000
A;Title: Characterization of a zebrafish (Danio rerio) sphingosine 1-phosphate receptor
A;Reference number: JG7559; MUID: 20563813
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Š.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                253 LSVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSLLNPIIYTLTNRD 312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LRHALLRLVCCGRHSCGRDPSGSQQSASAAEASGGLRRCLPPGLDGSFSGSERSS-PQRD 371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIVRHYNYTGKLNISADKENS-IKLTSVVFILICCFILLENIFVLLTIWKTKKFHRPMY 81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 13 EVIVLHYNYTGKLRGARYQPGAGLRADAVVCLAVCAFIVLENLAVLLVLGRHPRFHAPMF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      73 LLLGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLSLLAIALE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          YVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRARRFPRSLALLRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 381;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 41.3%; Score 834; DB 2; Length 38 Best Local Similarity 46.8%; Pred. No. 4e-57; Matches 174; Conservative 68; Mismatches 110; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      372 GLDTSGSTGSPG 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     364 EGDNPETIMSSG 375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
```

367

.. ..

29;

Length 378;

```
Typophosphatidic acid receptor - human
NyAlternate names: Edg2 protein
Cyspecias: Homo sapiens (man)
Cyspecias: Homo sapiens (man)
Cybate: 16-Apr-1997 sequence_revision 09-May-1997 *text_change 10-Dec-1999
CyAccession: JGS293
RyAn, S.; Dickens, M.A.; Bleu, T.; Hallmark, O.G.; Goetzl, E.J.
Blochem. Blophys. Res. Commun. 231, 619-622, 1997
A;Title: Molecular cloning of the human Edg2 protein and its identification as a func
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      G profein-coupled receptor Gpcr13 - mouse (fragment)
C;Species: Mus musculus (house mouse)
C;Species: Mus musculus (house mouse)
C;Daccies)
C;Daccies)
B;B(1809
B;Wilkie, T.M.; Chen, Y.; Gilbert, D.J.; Moore, K.J.; Yu, L.; Simon, M.I.; Copeland, Genomics 18, 175-184, 1993
A;Title: Identification, chromosomal location, and genome organization of mammalian GA;Reference number: A48909; MUID:94116980
                                                                                                                                                                                                                                                                                              A/Cross-references: GB:UB0811; NID:g1857424; PIDN:AAC51139.1; PID:g1857425
C;Superfamily: G protein-coupled receptor edg-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RFHAPWFLLLGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLS 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SLALLRILSVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSLLNPII 305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LLAIALERSLTMARRGPAPVSSRGRTLAMAAAAWGVSLLLGLLPALGWNCLGRLDACSTV 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A)Cross-references: GB:L20334; NID:9438786; PIDN:AAA16846.1; PID:9438787
C;Superfamily: G protein-coupled receptor edg-1
C;Keywords: G protein-coupled receptor
                                                                                                                                                                                                                                                                                                                                                                                                                           12 SEVIVLHYNYTGKLRGARYQP-----GAGLRADAVVCLAVCAFIVLENLAVLLVLGRHP
                                                                                                                                                                                                                                                                                                                                                                                                                                               LPLYAKAYVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRARRKPR
                                                                                                                                                                                                                                                                                                                                                                 Length 364;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 180;
                                                                                                                                                                                                                                                                                                                                                               25.1%; Score 506.5; DB 2; Length 32.9%; Pred. No. 7.3e-32; Live 73; Mismatches 130; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               YILINKDLRHALLRLVCCGRHSCGRDPSGSQQSASAAEAS 345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A)Status: preliminary, nucleic acid sequence not shown A)Molecule type; mRNA A)Residues: 1-180 <MIL>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 440.5; DB 2 Pred. No. 4.6e-27;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Status: nucleic acid sequence not shown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21.8%;
50.5%;
                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity 32.9%
Matches 112; Conservative
                                                                                                                                                                                                                                                                   ype: mrna
1-354 <ANA>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
                                                                                                                                                                                                                                    A; Accession: JC5293
 345 FLEGN 349
                                                                                                                                                                                                                                                                   A; Molecule type:
A; Residues: 1-35
                                                                                                                                                                                                                   A; Contents: lung
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        79
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RESULT
E48909
g
                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                prot
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       F:19/Binding site: carbohydrate (Asn) (covalent) #status predicted
F:142,145,218,219,329,330,331,332/Binding site: phosphate (Ser) (covalent) #status predi
F:313/Binding site: phosphate (Thr) (covalent) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ;
9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   63 RHPRFHAPMFLLLGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTAS 122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              123 VLSLLAIALERSLTMARRGPAPVSSRGRTLAMAAAAWGVSLLLGLLPALGWNCLGRLDAC 182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       226 -PQTLALLKTVITULGVFIICWLPAFSILLLDSTCPVRACPVLYKAHYFFAFATLNSLLN 284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     3 SGLLRPAPVSEVIVLHYNYTGKLRGARYQPGAGLRADAVVCLAVCAFIVLENLAVLLVLG 62
                          246 SLALLRTLSVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSLLNPII
                                                                                      LPLYAKAYVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRARRKPR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STVLPLYAKAYVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRARR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  243 KPRSLALLRTLSVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSLLN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PIIYTLTNRDLRHALLRLVCC---GRHSCGRDPSGSQQSASAAEASGGLRRCL----PP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 2; Length 352;
                                                                                                                                YTLTNRDLRHALLRLVCCGRHSC---GR------DPSGSQQSAS 340
                                                                                                                                                  Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         36.3%; Score 732.5; DB 2;
45.5%; Pred. No. 2.5e-49;
Live 48; Mismatches 122;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 166; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GLDGS 359
                                    189
        186
                                                                                                                                306
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       285
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         303
                                 셤
                                                                    à
                                                                                              g
                                                                                                                                å
                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
```

Matches 97; Conservative 27; Mismatches 53; Indels 15; Gaps 2; Qy 66 RPHAPWELLIGSLIAGAAVAANILLSGPLTLKISPALWFAREGGVEVALTASVLS 125	OY 152 LAMAAAAWGVSLLLGLLPALGWNCLGRLDACSTVLPLYAKAYVLFCVLAFVGILAAICAL 211 Db 154 YVMLALVWGGALGLGLLPVLAWNCLDGLTTGGYYPL-SKNHLVYLAIAFFWYFGIMLQL 212 QY 212 YYARIYCOVRANARRLPARPGTAGTTSTRARKRPSLALLTLSYVLLAFVAGW 264
A55689 G protein-coupled receptor 3 - human Ny Alternate names: G protein-coupled receptor GPR3; orphan G-protein-coupled receptor AC G protein-coupled receptor 3 - human Ny Alternate names: G protein-coupled receptor GPR3; orphan G-protein-coupled receptor AC G; Species: Homo sapiens (man) C; Date: 03-Mar-1995 #sequence_revision 03-Mar-1995 #text_change 19-May-2000 C; Accession: A55689; A55891; C35733 R; Iiamaa, T.P.; Kidfer, J.; Liu, M.L.; Baker, E.; Sutherland, G.R.; Shine, J. Genomics 24, 391-394, 1994 A; Title: Isolation and chromosomal localization of a novel human G-protein-coupled receptor A; Accession: A55689; MUID:95213036 A; Accession: A55689 A; Status: preliminary A; Molecule type: DNA; mRNA A; Residues: 1-330 clis> A; Cross-references: GB:L32831; NID:9602311; PIDN:AAA73560.1; PID:9602312	S40454 G protein-cjupled receptor GPCR21 - mouse C; Species: Mus musculus (house mouse) C; Date: 19-May-1994 #sequence_revision 10-Nov-1995 #text_change 20-Jun-2000 C; Accession: \$40454 R; Saeki, Y; Geno, S; Mizuno, R; Nishimura, T; Fujimura, H; Nagai, Y; Yanagihara FBBS Lett. 336, 317-322, 1993 A; Title: Molecular cloning of a novel putative G protein-coupled receptor (GPCR21) wh A; Reference number: \$40454 A; Rithe: Molecular cloning of a novel putative G protein-coupled receptor (GPCR21) wh A; Reference number: \$40454 A; Status: preliminary A; Accession: \$40454 A; Status: preliminary A; Residues: 1-330 CSAE> A; Cross-references: GB:D21062; NID:g455487; PIDN:BAA04641.1; PID:g455488 C; Superfamily: melanocortin receptor C; Keywords: G protein-coupled receptor; phosphoprotein; transmembrane protein
Riggdariox, D.; Dener, J.F.; Labbe, O.; Hayashi, Y.; Refetoff, S.; Vassart, G.; Parment Biochem. J. 309, 837-843; 1995 A;Title: Molecular cloning of an orphan G-protein-coupled receptor that constitutively a A;Reference number: S58221; MUID:9536960 A;Recession: S58521 A;Status: preliminary; not compared with conceptual translation A;Molecule type: DNA A;Residues: 1-330 eEGG> A;Cross-references: GB:X83956; NID:91061125; PIDN:CAA58767.1; PID:91061126 A;Residues: 1-330 eEGG> A;Cross-references: GB:X83956; NID:91061125; PIDN:CAA58767.1; PID:91061126 A;Ratchese, A.; Docherty, J.M.; Nquyen, T.; Helber, M.; Cheng, R.; Heng, H.H.Q.; Tsul, I Genomics 23, 609-618, 1994 A;Title: Cloning of human genes encoding novel G protein-coupled receptors. A;Reference number: A55733; MUID:95154831 A;Status: preliminary	Query Ma Best Loc Matches 39 44 44 103
A; Molecule type: DNA A; Residues: 1-292 < cvars A; Residues: 1-292 < cvars A; Crossine for a control of the co	LGLVPVLAWNCRDGLTTCGVVYPE-SKN QVRANARRLPARPGTAGTTSTRARRKPR :
Query Match 17.7%; Score 357; DB 2; Length 330; Best Local Similarity 35.5%; Pred. No. 2.3e-20; Matches 107; Conservative 40; Mismatches 108; Indels 46; Gaps 12; Qy 39 DAVVCLAVCAPIVLENIAVLLVICRHPREHAPMELLIGSLEIGELIAGAAYAANILL 95	RESULT 10 A33117 cannabinoid receptor CB1 - rat Cannabinoid receptor CB1 - rat C, Species: Rattus norvegicus (Norway rat.) C; Species: Rattus norvegicus (Norway rat.) C; Species: Rattus norvegicus (Norway rat.) C; Accession: A33117; C55879 C; Accession: A33117; C55879 R; Mattus 346, 561-564, 1990 A; Title: Structure of a cannabinoid receptor and functional expression of the cloned A; Reference number: A33117; MUD: 90332039 A; Recession: A33117 A; Molecule type: mRNA

```
C.Date: 03-Feb.1994 #sequence_revision 03-Feb-1994 #text_change 21-Jul-2000 C.Accession: 817595, 813668; A55879 C.Accession: 817595, 813668; A55879 B.Gorben. C.M.; Mollecaud, C.; Vassart, G.; Parmentier, M. Biochem. J. 279, 129-114, 1991 A.Title: Molecular cloning of a human cannabinoid receptor which is also expressed in A.Feference number: 817595, MuID:92028798
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Molecule type: mRNA
A; Residues: 1-472 <GER2>
A; Cross-references: EMBL:X54937; NID:929914; PIDN:CAA38699.1; PID:929915
A; Cross-references: EMBL:X54937; NID:929914; PIDN:CAA38699.1; PID:929915
B; Shire, D.; Carillon, C.; Kaghad, M.; Calandra, B.; Rinaldi-Carmona, M.; Le Fur, G.; J. Biol. Chem. 270, 3726-3731, 1995
A; Title: An amino-terminal variant of the central cannabinoid receptor resulting from A; Reference number: A55879; MuID:95181329
A; Reference number: A55879
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           transmembrane protein
                                                                                                                                                                                                                                                                                                                                                  204 ILAAİCALYARIYCOVRANARRLPARPGTAGTTSTRARRKPRSLALLRTLSVVLLAFVAC 263
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         264 WGPLFLLLLLDVACPARTCPVLLQADP----FLGLAMANSLLNPIIYTLTNRDLRHAL 317
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          292 WLPF-----AIYCVVGSHEDPAVYTYATLLPATYNSMINPIIYAFRNQEIQRAL 340
                         : : | | : : | | : : | | : : | | | : : | | | : : | | | : : | | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | | : : | : | : | : : | | : : | : | : : | | : : | : | : : | : : | | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : | : : 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Cross-references: EMBL:X54937; NID:q29914; PIDN:CAA38699.1; PID:g29915 R;Gerard, C.; Mollereau, C.; Vassart, G.; Parmentier, M. Nuclec, C. Acids Res. 18, 7142, 1999.
A;Title: Nuclectide sequence of a human cannabinoid receptor cDNA. A;Reference number: S13668; MUID:91088303
                                                                                                                                                                                                                    148 RGRIL----AMAAAAMGVSLLLGLLPALGWNCLGRLDACSTVLPLYAKAYVLFCVLAFVG
                                                                                                                                                                                                                                                                                                                                                                                                                                                   237 VFGINLHLYVRICQVVWRHAHQIALQQHCLAPPHLAATRKG-----VGTLAVVLGTFGAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             F:233-256/Domain: transmembrane fstatus predicted <TM4>
F:275-299/Domain: transmembrane fstatus predicted <TM5>
F:345-365/Domain: transmembrane fstatus predicted <TM6>
F:345-399/Domain: transmembrane fstatus predicted <TM6>
F:777,83/Binding site: carbohydrate (Asn) (covalent) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gene: GDB:CNR1; CNR
:Cross-references: GDB:127354; OMIM:114610
:Map position: 6q14-6q15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               transmembrane #status
transmembrane #status
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Reywords: G protein-coupled receptor;
117-142/Domain: transmembrane #status
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 transmembrane *status
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Status: translation not shown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           96; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C; Species: Homc sapiens (man)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Residues: 1-124 <SHI>
Cross-references: GB:X81120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A, Molecule type: mRNA
A, Residues: 1-472 <GER1>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cannabinoid receptor CB1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              341 WLLLC: 345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              318 LRLVC 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A; Accession: S13668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            155-175/Domain:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          188-212/Domain:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Best Loca
Matches
                                                            ద
                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                       à
                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                              A;Cross-references: GB:XSSB12; NID:g1552375; PIDN:CAA39332.1; PID:g57249
R;Shire, D.; Carillon, C.; Kaghad, M.; Calandra, B.; Rinaldi-Carmona, M.; Le Fur, G.; Calandra, Chem. 270, 372-6-3731, 1995
A;Title: An amino-terminal variant of the central cannabinoid receptor resulting from al A;Reference number: A55879; MUID:95181329
A;Accession: C55879
A;Status: preliminary; not compared with conceptual translation
A;Molecule type: mRNA
A;Residues: 1-107 <SHI>
C;Keywords: G protein-coupled receptor; glycoprotein; membrane protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C; Species: Home sapiens (man)
C; Species: Home sapiens (man)
C; Date: 29-May-1998 #sequence_revision 29-May-1998 #text_change 24-Sep-1999
C; Accession: 155990
R; Helber, M.; Docherty, J.M.; Shah, G.; Nguyen, T.; Cheng, R.; Heng, H.H.Q.; Marchese, DNA Cell Biol. 14, 25-35, 1995
A; Title: Isolation of three novel human genes encoding G protein-coupled receptors.
A; Accession: 155990
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ő
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AIAVLSLTLGTFTVLENLLVLCVI-----LHSRSLRCRPSYHFIGSLAVADLLGSVIFVY 173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     92 NILLSGPLTLKLSPALWFAREGGVFVALTASVLSLLAIALERSLTMARRGPAPVS---- 146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEVDEHVEHRKDSPNVFLFKLGGVTASFTASVGSLFLTAIDRYISIHR----PLAYKRIV 229
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SRGRTLAMAAAAWGVSLLLGLLPALGWNCLGRLDACSTVLPLYAKAYVLFCVLAFVGILA 206
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        :| :: | :: | ::::::|| ||||||| | | : ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||: ||
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AICALYARIYCQVRANARRLPARPGTAGT----TS-----TRARRKPRSLALLRTLSV 255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             256 VLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLG-LAMANSLLNPIIYTLTNRDLR 314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              88 AYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLSLLAIALERSLTWARRGPAPVSS 147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     38 ADAVVCLAVCAFIVLENLAVLLVLGRHPRFHA-----PMFLLLGSLTLSDLLAGAAYAA 91
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               32 PGAGLRA----DAVVCLAVCAFIVLENLAVLLVLGRHPRFHAPMFLLLGSLTLSDLLAGA 87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Residues: 1.362 <RES>
A;Cross references: GB:L36150; NID:9598156; PIDN:AAA63181.1; PID:9598157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    35;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        38;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 473;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 362;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; Score 325.5; DB 2; Length 4'; Pred. No. 8.9e-18; 59; Mismatches 117; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         tch
al Similarity 34.1%; Score 318; DB 2; Length 36
al Similarity 34.1%; Pred. No. 2.6e-17;
104; Conservative 38; Mismatches 125; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Cross-references: GDB:371713; OMIM:600553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                G protein-coupled receptor 6 - human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Map position: 6q21-6q21
C; Superfamily: melanocortin receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16.1%;
30.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 Similarity 30.1 91; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 104; Conserv
A; Residues: 1-473 <MAT>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Molecule type: DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             315 HA 316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        HA 408
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Gene: GDB:GPR6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     119
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           207
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        407
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
```

```
11;
                                                    Gaps
                                                                                         38 ADAVVCLAVCAFIVLENLAVILVIGRHPRFHA-----PMFLLIGSLTLSDLIAGAAYAA 91
Length 472;
15.4%; Score 310; DB 2; Length 47 27.8%; Pred. No. 1.4e-16; tive 65; Mismatches 142; Indels
```

ဖ

11;

Gaps

```
C; Accession: S36750
R; Munro, S.: Thomas, K.L.; Abu-Shaar, M.
Nature 365, 61-65, 1993
A; Title: Molecular characterization of a peripheral receptor for cannabinoids.
A; Reference number: S36750; MUD: 93368659
A; Accession: S36750
A; Accession: S36750
A; Molecule type: mRNA
A; Molecule type: mRNA
A; Residues: 1-360 <MUN>
A; Residues: 1-360 <MUN>
A; Csossreferences: EMBL: X74328
C; Superfamily: melanocortin receptor
                                            C;Species: Homo sapiens (man)
C;Date: 22-Jan-1994 #sequence_revision 10-Nov-1995 #text_change 17-Mar-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       215 IYCOVRANARRLPAR-----PGTAGTTSTRARRKPRSLALLRTLSVVLLAFVACWGPLFL 269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    270 LILLDVACPARTCPVLLQADPFLG-LAMANSLLNPIIYTLTNRDLR----HALLRLVCCG 324
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GPLTLKLSPALWFAREGGVFVALTASVLSLLAIALERSLTMARRGPA--PVSSRGRTLAM 154
                                                                                                                                                                                                                                                                                                                                                                                                                               38 ADAVVCLAVCAFIVLENLAVL-LVLGRHPRFHAPMFLLLGSLTLSDLLAGAAYAANILLS 96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Status: preliminary; not compared with conceptual translation A;Molecule type: nucleic acid A;Residues: 48-120, Fr,122-372 <LAB>
A;Residues: 48-120, Fr,76295; NID:9498973; PIDN:CAA53943.1; PID:9498974 A;Cross-references: clone HGMP01B A;Experimental source: clone HGMP01B A;Note: sequence extracted from NCBI backbone (NCBIP:145988) A;Note: Sequence oxtracted from NCBI May, H; Dickinson, C.J.; Yamada, T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      29;
                                                                                                                                                                                                                                                                                                                                                       Length 360;
                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                14.3%; Score 289.5; DB 2; 29.3%; Pred. No. 4.1e-15; ive 50; Mismatches 150;
          cannabinoid receptor CB2 - human
N.Alternate names: cannabinoid receptor, peripheral
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     325 RHSCGRD--PSGSQQSASAEASG 346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             322 R-GLGSEAKEEAPRSSVTETEADG 344
                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 29.39
Matches 95; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   95
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Stooly Stool of protein-coupled receptor protein - rat C; Species: Rattus norvegicus (Norway rat)
C; Species: Rattus norvegicus (Norway rat)
C; Species: Rattus norvegicus (Norway rat)
C; Accession: 548697
R; Song, Z.H.; Young III, W.S.; Brownstein, M.J.; Bonner, T.I.
R; Song, Z.H.; Xoung III, W.S.; Brownstein, M.J.; Bonner, T.I.
R; Song, Z.H.; Young III, W.S.; Brownstein, M.J.; Bonner, T.I.
A; Reference number: 548697
A; Reference number: 548697; MUID: 94364507
A; Arcession: 548697
A; C.Superiamily: melanocortin receptor
C; Superiamily: melanocortin receptor
C; Keywords: G protein-coupled receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                õ
                                                                                                                                                                                                         255
                                                                                                                                           SFIDEHVFHRKDSRNVFLFKLGGVTASFTASVGSLFLTAIDRYISIHR----PLAYKRIV 228
                                                                                                                    SRGRILAMAAAAWGVSLLLGLLPALGWNCLGRLDACSTVLPLYAKAYVLFCVLAFVGILA 206
                                                                                                                                                                                                                                                                               256 VLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLG-LAMANSLLNPIIYTLTNRDLR 314
                                                                                                                                                                                                                                                                                                        :|: :||||| :::||| :::|| 348 ILVVLIICWGPLLAIMVYDVF--GKMNKLIKTVFAFCSMLCLINSTVNPIIYALRSKDLR 405
  118 AIAVLSLTLGTFTVLENLLVLCVI----LHSRSLRCRPSYHFIGSLAVADLLGSVIFVY 172
                                                                                                                                                                                                                                         289 FIVYAYMYILWKAHSHAVRMIQR-GTOKSIIIHTSEDGKVQVTRPDQARMDIRLAKTLVL 347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            89 YAANILLSGPLTLKLSPALWFAREGGVFVALTASVLSLLAIALERSLTMARRGPAPVSSR 148
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            126 LILHFVFQYVVP---SETVSLIMVGFLVASFAASVSSLIAITVDRYLSLYN---ALTYYS 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                265 GPLFLLLLLDVACPARTCPVLLQADPFLGL-----AMANSLLNPIIYTLTNRDLRHALL 318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               294 LPF------AIXCVVGSQEDFAIYITATLLPATYNSMINPIIYAFRNQEIQRALW 342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GRTL----AMABARGVSLLLGLLPALGWNCLGRLDACSTVLPLYAKAYVLFCVLAFVGI 204
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       205 LAAICALYARIYCQVRANARRLPARPGTAGTTSTRARRKPRSLALLRTLSVVLLAFVACW 264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       239 FGIMLHLYVRICOVVWRHAHQIALQQHCLAPPHLAATRKG-----VGTLAVVLGTFGASW 293
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                34 AGLRADAV----VCLAVCAFIVL-ENLAVLLVLGRHPRFHAPMFLLLGSLTLSDLLAGAA 88
                                        NILLSGPLTLKLSPALWFAREGGVFVALTASVLSLLAIALERSLTMARRGPAPVS----
                                                                                                                                                                                                  207 AICALYARIYCOVRANARRLPARPGTAGT----TS-----TRARRKPRSLALLRTLSV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                38;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 363;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ouery Match 15.3%; Score 308; DB 2; Length 363
Best Local Similarity 32.9%; Pred. No. 1.5e-16;
Matches 100; Conservative 40; Mismatches 126; Indels
                                                                                                                                                                                                                                                                                                                                                             315 HALLRLV--CCGR----HSCGRDPSGSQQSASAAEASGGLRRCL 352
                                                                                                                                                                                                                                                                                                                                                                                                     406 HAFRSMFPSCEGTAQPLDNSMGDSDCLHKHANNAASVHRAAESCI 450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          343 LLFC 346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    319 RLVC 322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14
                                                                                173
                                                                                                                      147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RESULT
S36750
셤
                                        à
                                                                        셤
                                                                                                                    ç
                                                                                                                                                        g
                                                                                                                                                                                          õ
                                                                                                                                                                                                                                  윱
                                                                                                                                                                                                                                                                               å
                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                             a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        쉱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
```

ί

```
A; Molecule type: DNA
A; Residues: 48-372 < GAN>
A; Residues: 48-372 < GAN>
A; Residues: 48-372 < GAN>
A; Cross-references: GB:L2527; NID:g468377; PIDN:AAA21337.1; PID:g468378
C; Comment: This protein responds to melanocortins with an increase in intracellular cycl
C; Superfamily: melanocortin receptor
C; Superfamily: melanocortin receptor
C; Superfamily: menanocortin receptor
C; Superfamily: menanocortin receptor
F; Reynowali: transmembrane fatatus predicted <TM1>
F: 101-144/Domain: transmembrane fatatus predicted <TM2>
F: 164-185/Domain: transmembrane fatatus predicted <TM3>
F: 202-257/Domain: transmembrane fatatus predicted <TM3>
F: 212-244/Domain: transmembrane fata
Biochem. Biophys. Res. Commun. 200, 1214-1220, 1994
A:Title: Molecular cloning, expression, and characterization of a fifth melanocortin red
A:Reference number: JC2244; MUID:94241974
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           83 LLAGAAYAANILLSGPLTLK-LSPALWFAR-----EGGVFVALTASVLSLLAIALERSL 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            136 TM-----ARRGPAPVSSRGRTLAMAAAAWGVSLLLGLLPALGWN-CLGRLDACS 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  190 TIFYALRYHHIMTARRS-----SCG 221
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     184 TVLPLYAKA-YVLFCVLA-FVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRAR 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         242 RKPRSLALLRTLSVVLLAFVACWGPLFLLLLLDVACPART-CPVLLQ-ADPFLGLAMANS 299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                33 GAGLRADAVVC----LAVCAFI-----VLENLAVLLVLGRHPRFHAPMFLLLGSLTLSD 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    : 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 26.2%; Pred. No. 1.5e-14;
Matches 85; Conservative 70; Mismatches 102; Indels 67
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 336 VIDPLIYALRSQEMRRIFKEIVCC 359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     심
```

Search completed: January 16, 2002, 23:41:21 Job time: 363 sec

```
January 16, 2002, 23:38:53; Search time 64.41 Seconds (without alignments) 226.558 Million cell updates/sec
GenCore version 4.5 ... Copyright (c) 1993 - 2000 Compugen Ltd.
                                                                                           OM protein - protein search, using sw model
                                                                                                                                            Run on:
```

US-09-842-316-2 2019 1 MESGLLRPAPVSEVIVLHYN.....TGSPGAPTAARTLVSEPAAD 398 Title: Perfect score: Sequence:

100059 seqs, 36664827 residues BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table: Searched:

100059 Total number of hits satisfying chosen parameters:

Minimum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

SwissProt_39:* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES Res

	Description	O08530 mus musculu	ratt	homo sa	_	rattu	Ξ		bos t	ovis	P52592 mus musculu		homod	mus m	mus	fugn		Q98895 fugu rubrip			002777 felis silve		Q9pui7 taricha gra			P51651 rattus norv	P34972 homo sapien		P56451 bos taurus	gnw	\sim	m snm	P41983 ovis aries	P18090 rattus norv
																	٠.																	
	11	EDG1_MOUSE	EDG1_RAT	EDG1_HUMAN	EDG3_HUMAN	H218_RAT	EDG2_MOUSE	EDG2_HUMAN	EDG2_BOVIN	EDG2_SHEEP	EDGL_MOUSE	GPR3_HUMAN	GPRC_HUMAN	GPRC_MOUSE	GPR3_MOUSE	CB1A_FUGRU	GPRC_RAT	CB1B_FUGRU	CB1R_MOUSE	CB1R_RAT	CB1R_FELCA	CB1R_POEGU	CB1R_TARGR	GPR6_HUMAN	CB1R_HUMAN.	GPR6_RAT	CB2R_HUMAN	MC5R_PIG	MC5R_BOVIN	MC5R_MOUSE	MC5R_HUMAN	B1AR_MOUSE	MC5R_SHEEP	Blar_rat
	80	-	Н	-	-	<u>.</u>	Н	-	7		-	-	~		-	-		-	٦,	-	-	_	—				-	-		-	-	-	-	_
	Query Match Length DB	382	383	381	378	352	364	364	364	393	180	330	334	334	330	468	334	470	473	473	472	473	473	362	472	363	360	294	325	325	325	466	325	466
æ (Match		•	٠	•		•		•	٠	•	17.7	•		17.2			16.9		16.1			15.8								14.0			13.9
	Score	865.5	853.5	œ	774.5	732.5	518.5	506.5	505.5	505.5	440.5	m	352.5	350	347	m (346.5	342	325.5	325.5	323.5	322.5	318.5	318		308	291.5	289.5	287.5	283.5	283	282	281.5	.281
+	No.	н	~	m	❤ ('n	ا ص	٠,	20 6	ъ.	2:	Ξ:	7:	£ ;	14	5	9 :	7;	D C	<u>.</u>	20	77	7 6	57	7 0	2,5	9 1	7.7	87	53	90	E :	32	33

Q9tt23 pan troglod P79148 canis famil P35345 rattus norv O97504 sus scrofa P47936 mus susculu Q94118 bos taurus Q94209 rattus norv Q95245 homo sapien P41968 homo sapien P47899 macaca mula
MC5R_PANTR BIAR_CANFA MC5R_RAT MC4R_BIG CB2R_MOUSE MC4R_BOVIN BIAR_BOVIN BIAR_BOXIN BIAR_FELCA MC4R_HUMAN MC3R_HUMAN
aaaaaaaaaaaa
328 328 3328 332 332 4474 480
133.55 133.55 133.55 133.55 133.55
277 275 275 273.5 273.5 273.5 272.5 272.5 272.5
99999999999999999999999999999999999999

ALIGNMENTS

~

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 73 LILIGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLSLLAIALE 132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        133 RSLIMARRGPAPVSSRGRILAMAAAAMGVSLLLGLLPALGWNCLGRLDACSTVLPLYAKA 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       253 LÄVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSLLNPIIYTLTNRD 312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TESTICLE, LUNG AND BRAIN. AT ADULTHOOD IS MOST ABUNDANT IN BRAIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        313 LEHALLRLVCCGRHSCGRDPSGSQQSASAAEASGGLRRCLPPGLDGSFSGSERSS-PQRD 371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24 DÄIVRHYNYTGKL-NIGVEKDHGIKLTSVVFILLICCLILLENIFVLLFIWKTKKFHRPMY 82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EVIVLHYNYTGKLRGARYQPGAGLRADAVVCLAVCAFIVLENLAVLLVLGRHPRFHAPMF 72
                  -!- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               193 YVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRARRPRSLALLRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 1; Length 383;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; Pred. No. 3e-49;
66; Mismatches 110; Indels
                                                                                                                                                                                                                                     PROSITÉ: PS0027; G_PROTEIN_RECEP_F1_1; 1.
PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
G-protein coupled receptor; Transmembrane; Glycoprotein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      N-LINKED (GLCNAC. . ) (POT
PALMITATE (BY SIMILARITY).
PHOSPHORYLATION (POTENTIAL)
090BA6AEE09DB4F3 CRC64;
                                                                                                                                                                                                                                                                                                                                       EXTRACELLULAR (POTENTIAL).
3 (POTENTIAL).
                                                                                                                                                                                                                                                                                              EXTRACELLULAR (POTENTIAL).
1 (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                             EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                   EXTRACELLULAR (POTENTIAL)
7 (POTENTIAL)
                                                                                                                                                                                                                                                                                                                          CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                      (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      42.3%; Score 853.5;
47.6%; Pred. No. 3e-4
                                                                                                                                                                                                                                                                                                                                                                                                                         (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                              4 (POTENTIAL)
                                                                                                                                                                                                                                                                                 Phosphorylation; Lipoprotein; Palmitate.
                                                                                                                                                                             Interproj ipR000276; GPCR_Rhodpsn.
Pfam; PF00001; 7tm_1; 1.
PRINTS; PR000237; GPCRRHODOPSN.
PRINTS; PR00642; EDG10RPHANR.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ξ
Σ
                                                                                                                                                      EMBL; 010303; AAA83418.1; -. GCRDb; GCR_1453; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               42745
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 47.6
Matches 177; Conservative
                                                                                                                                                                                                                                                                                                                                     372 GLDTSGSTGSPG 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DGDNPETIMSSG 377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DOMAIN
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                      DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MOD_RES
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                 DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                DOMAIN
                                                                                                                                                                                                                                                                                                                                       TRANSMEM
                                                                                                                                                                                                                                                                                                            TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                  RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                          FRANSMEM
                                                                                                                                                                                                                                                                                                                                                    DOMAIN
                                                                                                                                                                                                                                                                                                                          DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
                                                                                                                                                                                                                                                                                              DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   143
     셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                           9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TISSUE-Cerebellum:
MEDLINE-9504748; pubmed-7959012;
Lado D.C., Browe C.S., Gaskin A.A., Borden J.M., Maclennan A.J.;
Lado D.C., Browe C.S., Gaskin A.A., Borden J.M., Maclennan A.J.;
Clohing of the rat edg-1 immediate-early gene: expression pattern
auggests diverse functions.";
Gene 149:331-336(1994).
I- FUNCTION: IT 13 POSSIBLE THAT IT ACTS AS A RECEPTOR FOR A TROPHIC
FACTOR AND IS INVOLVED IN THE SURVIVAL OF BRAIN CELLS.
I- SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN
I- SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN
FOSTNATAL STAGE: FIRST DETECTED AT EMBRYONIC DAY 15. AT
FOSTNATAL'DAY 14 DETECTED IN SKIN, SPLEEN, LIVER, KIDNEY, HEART,
                                                                                                                                                                                                                                                                                                                       ERSLTWARRGPAPVSSRGRTLAMAAAWGVSLLLGLLPALGWNCLGRLDACSTVLPLYAK 191
                                                                                                                                                                                                                                                                                                                                                                                                                    AYVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRARRKPRSLALLR 251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DLRHALLRLVCCGRHSCGRDPSGSQQSASAAEASGGLRRCLPPGLDGSFSGSERSS-PQR 370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gaps
                                                                                                                                                                                                                                                                                                       72 FLLLGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLSLLAIAL 131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       252 TLSVVLLAFVACHGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSLLNPIIYTLTNR 311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryotti, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Rodentia, Sciurognathi, Muridae, Murinae, Rattus.
                                                                                                                                                                                                                                                  13 EVIVLHYNYTGKLR-GARYQPGAGLRADAVVCLAVCAFIVLENLAVLLVLGRHPRFHAPM 71
                                                                                                                                                                                                                                                                 (POTENTIAL)
                                                                                                                                                                                            Length 382;
                                                   6 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
N-LINKED (GLCNAC...) (POTENT
PALMITATE (BY SIMILARITY).
PHOSPHORYLATION (POTENTIAL).
                                                                                                                                                                                                                         Indels
 4 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
                           5 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                         42.9%; Score 865.5; DB 1;
48.5%; Pred. No. 4.9e-50;
tive 66; Mismatches 105;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-FEB-1996 (Rel. 33, Created)
01-FEB-1996 (Rel. 31, Last sequence update)
15-JUL-1998 (Rel. 36, Last annotation update)
PROBABLE G PROTEIN-COUPLED RECEPTOR EDG-1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               383 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
                                                                                                                                                   42571 MW;
                                                                                                                                                                                                                      Matches 181; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Rattus norvegicus (Rat)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DGLDTSGSTGSPG 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            364 DDGDNPETIMSSG 376
                                                                                                                                                     Ë
                                                                                                                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID-10116;
                                                                                                                                                   382
TRANSMEM
DOMAIN
TRANSMEM
DOMAIN
TRANSMEM
                                                                 DOMAIN
TRANSMEM
DOMAIN
                                                                                                                         LIPID
MOD_RES
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EDG1_RAT
P48303;
                                                                                                            CARBOHYD
                                                                                                                                                                                          Query Match
                                                                                                                                                                                                           Best Local
                                                                                                                                                                                                                                                                                                                                 81
                                                                                                                                                                                                                                                                                                                                                                132
                                                                                                                                                                                                                                                                                                                                                                                        141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                371
                                                                                                                                                                                                                                                                                                    ð
 SOFFFFFFFFF
                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                               윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ö
                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                   ö
                                                                                                                                                                                                                                                                                                                                                                                                                                         음
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         g
```

ŝ

Gaps

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                         Hla T., Maciag T.;
"An abundant transcript induced in differentiating human endothelial cells encodes a polypeptide with structural similarities to G-protein-coupled receptors.";
J. Biol. Chem. 265:9308-9313(1990).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OF EPITHELIOID ORIGIN. INDUCTION: BY THE TUMOR PROMOTER PHORBOL 12-MYRISTATE 13-ACETATE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS
                                                                                                                               Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Interpro; IPR000276; GPCR_Rhodpsn.
Pfam: PF00001; 7tm_1: 1.
PRINTS: PR00237; GPCRHPDOPSN.
PROSITE: PS00237; G_PROTEIN_RECEP_FL_1: 1.
PROSITE: PS00237; G_PROTEIN_RECEP_FL_2: 1.
G-PROTEIN_ROUGH CRECEP_FL_2: 1.
G-PROTEIN_RECEP_FL_2: 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CYTOPLASMIC (POTENTIAL).
2 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                 01-MAY-1991 (Rel. 18, Last sequence update)
01-MAY-1991 (Rel. 18) Last sequence update)
20-AUG-2001 (Rel. 40, Last annotation update)
PROBABLE G PROTEIN-COUPLED RECEPTOR EDG-1.
                              381 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (PME) IN THE PRESENCE OF CYCLOHEXIMIDE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (POTENTIAL)
                                                                                                                                                                                               TISSUE-Umbilical vein endothelial cells;
MEDLINE-90264425; PubMed-2160972;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; M31210; AAA52336.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .; AF022137; AAC51905.1;
A35300; A35300.
bb; GCR_0067; -.
                                                                                                                    sapiens (Human)
                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                        NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      601974;
                                                                                                                                                                                                                                                                                                                     TISSUE-Lund
                        EDG1_HUMAN
P21453;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FRANSMEM
 RESULT 3
EDG1_HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCRDb;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DOMAIN
RESULT
```

```
192
                                                                                                                                                                                                                                                                                                                                                                                                       201
                                                                                                                                                                                                                                                                                                                                                                                                                                      252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  256
                                                                                                                                                                                                                                                                                                              73 LLLGSITLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLSLLAIALE 132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      317 MRRAFIRIM-----SCCKCPSG-------DSAGKFKRPIIAGMEFSRSKSDNSSHPQKD 363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            An S., Bleu T., Huang W., Hallmark O.G., Coughlin S.R., Goetzl E.J.; "Identification of CDNAs encoding two G protein-coupled receptors for
                                                                                                                                                                                                                           20; Gaps
                                                                                                                                                                                                                                                                                  81
5 (POTENTIAL).
CYTOPLASHIC (POTENTIAL).
6 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
7 (POTENTIAL).
CYTOPLASHIC (POTENTIAL).
N-LINKED (GLCNAC. ..) (POTENTIAL).
N-LINKED (GLCNAC. ..) (POTENTIAL).
PALMITATE (BY SIMILARITY).
PHOSPHORYLATION (POTENTIAL).
MM; D706DA4C74C2E093 CRC64;
                                                                                                                                                                                                                                                                                                                               133 RSLTMARRGPAPVSSRGRTLAMAAAAWGVSLLLGLLPALGWNCLGRLDACSTVLPLYAKA
                                                                                                                                                                                                                                                                                                                                                                                         313 LRHALLÄRLVCCGRHSCGRDPSGSQQSASAAEASGGLRRCLPPGLDGSFSGSERSS-PQRD
                                                                                                                                                                                                                                                   13 EVIVLHYNYTGKLRGARYQPGAGLRADAVVCLAVCAFIVLENLAVLLVLGRHPRFHAPMF
                                                                                                                                                                                                                                                                                                                                                                                                                                 YVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRARRKPRSLALLRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            253 LSVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSLLNPIIYTLTNRD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE-97032811; PubMed-8878560; Yamaquchi E., Tokuda M., Hatase O., Brenner S.; Yamaquchi E., Tokuda M., Hatase O., Brenner S.; Molecular clonding of the novel human G protein-coupled receptor (GPCR) gene mapped on chromosome 9.";
                                                                                                                                                                                              Length 381;
                                                                                                                                                                                       Query Match 41.3%; Score 834; DB 1; Length 38 Best Local Similarity 46.8%; Pred. No. 5.6e-48; Matches 174; Conservative 68; Mismatches 110; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Commun. 227:608-614(1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
20-AUG-2001 (Rel. 40, Last annotation update)
LYSOSPHINGCLIPID RECEPTOR (EDG-3).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     378 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TISSUE-Brain;
MEDLINE-98072391; PubMed-9409733;
                                                                                                                                                  42695 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Blochem. Blophys. Res.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                372 GLDTSCSTGSPG 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          364 EGDNPETIMSSG 375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens (Human)
                                                                                                                 327
352
381 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TISSUE-Placenta;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EDG3_HUMAN
Q99500;
 TRANSMEM
DOMAIN
TRANSMEM
DOMAIN
TRANSMEM
                                                                       DOMAIN
CARBOHYD
CARBOHYD
                                                                                                                 LIPID
MOD_RES
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                 193
   STATESTA
                                                                                                                                                                                                                                                                                a
                                                                                                                                                                                                                                                                                                              à
                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                   δ
                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
```

```
This $WISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to licensee(15b-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4
125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             126 LIAIALERSLIMARRGPAPVSSRGRTLAMAAAAMGVSLLLGLLPALGWNCLGRLDACSTV 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LPLYAKAYVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRARRKPR 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     237
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SLALLRTLSVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSLLNPII 305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |:| :| :| || || || || : ::
9 LQPVRGNETLREHYQYVGKLAGRLKEASEGSTLTTVLFLVICSFIVLENLAVLLAIWKNN 68
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LRPAPVSEVIVLHYNYTGKLRGARYQPGAGLRADAVVCLAVCAFIVLENLAVLLVLGRHP 65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 66 RFHAPMFLLLGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         79A00306203F439F CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  38.4%; Score 774.5; DB 1; Length 378;
44.7%; Pred. No. 4.3e-44;
Live 55; Mismatches 109; Indels 29;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           YTLINRDLRHALLRLVCCGRHSC---GR------DPSGSQQSAS 340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                   5 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
6 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                 4 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                       CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                   CYTOPLASMIC (POTENTIAL).
N-LINKED (GLCNAC. . .) (
                                                                                                                                                                                                                                                                                                               (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                          (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                       Ĭ.
                                                                                                                                                             EMBL; X83864; CAA58744.1; -.
                                                                                                                                                                     AF022139; AAC51906.1; GCR_2107; -.
                                                                                                                                                                                                                                                                                                                                                                                      302
378
15
42294 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 44.71
Matches 156; Conservative
                                                                                                                                                                                                                                                                        65
101
101
134
1179
1179
2243
2243
2243
2243
                                                                                                                                                                                          601965;
                                                                                                                                                                                                                                                                                DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                       DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                             'RANSMEM
                                                                                                                                                                                                                                                                                                                                                    PRANSMEM
                                                                                                                                                                                                                                                                                                                                                                      RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                           RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
                                                                                                                                                                                                                                                                                                                                         DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     246
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                298
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           306
  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
```

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDIZE-Brain;
MEDIZERE-9807331;
MEDIZERE-9807321;
MEDIZERE-9807321;
MEDIZERE-9807321;
Huang W. Hallmark O.G., Coughlin S.R., Goetzl E.J.;
Identification of cDNas encoding two G protein-coupled receptors for lysosphingollpids.*

Iyaosphingollpids.*

I-PHOSPHOLD POSSIBLE RECEPTOR FOR THE LYSOSPHINGOLIPIDS SPHINGOSINE

I-PHOSPHATE (SIP) AND DIHERDRO-SIP.

I-PHOSPHATE (SIP) AND DIHERDRO-SIP.

I-SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN.

I-SUBCELLULAR LOCATION: NYEGRAL MEMBRANE PROTEIN.

I-TISSUE SPECIFICITY: EXPRESSED IN ALL DEVELOPING TISSUES WITH HIGHEST LEVELS DETECTED IN PRIMITIVE, TRANSPORMED CELLS. RELATIVE ABUNDANCE: LUNG > KINNEY = SKIN = GUT > SPLEEN > BRAIN > LIVER.

I-SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       InterPro; IPR000276; GPCR_Rhodpsn.
Pfam; P200001; 7tm_1; 1.
PRINTS; PR000237; GPCRRHODOPSN.
PROSTIE: PS00237; GPCRRHODOPSN.
PROSTIE: PS00237; GPCRPIL_RECEP_F1_1; FALSE_NEG.
PROSTIE: PS50262; G_RROTEIN_RECEP_F1_2; 1.
G-protein coupled receptor; Transmembrane; Glycoprotein; Lipoprotein;
                                                                                           01-FEB+1996 (Rel. 33, Last sequence update)
15-JUL+1999 (Rel. 38, Last annotation update)
PROBABLE G PROTEIN-COUPLED RECEPTOR H218 (AGR16) (LYSOSPHINGOLIPID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TISSUE-Aortic smooth muscle;
MEDILINE-39176155; PubMed-8882486;
MEDILINE-39176155; PubMed-8882486;
Kumada M., Takuwa Y.;
Kumada M., Takuwa Y.;
Molecular cloning of a novel putative G protein-coupled receptor expressed in the cardiovascular system.";
Biochem. Biophys. Res. Commun. 190:1104-1109(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Maclendan A.J., Browe C.S., Gaskin A.A., Lado D.C., Shaw G.; "Clonify and characterization of a putative G-protein coupled receptor potentially involved in development."; Mol. Cell. Neurosci. 5:201-209(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        3 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
             Ä
             352
             PRT;
                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
IISSUE-Brain, and Lung;
MEDLINE-94373324; PubMed-8087418;
                                                                    01-FEB+1996 (Rel. 33, Created)
01-FEB+1996 (Rel. 33, Last seg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL; U10699; AAA19241.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL, AF022138, AAC53494.1,
GCRDb, GCR_1036,
GCRDb, GCR_2551,
         STANDARD;
                                                                                                                                                                                                                              Rattus norvegicus (Rat)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  34
59
66
109
147
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     35
60
67
67
96
129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Palmitate.
H218_RAT
P47752;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FRANSMEN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
             HIDDEN STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER STANDER
```

Brain Res. Mol. Brain Res. 42:245-254(1996) (POTENTIAL). 41119 MW; EMBL; U70622; AAC52923.1; -. EMBL; U48235; AAC53035.1; -. EMBL; AF014418; AAB86381.1; Best Local Similarity 34.19 Matches 115; Conservative GCRDb; GCR_1643; -. GCRDb; GCR_1654; -. 281 295 316 327 27 35 225 364 AA; DOMAIN DOMAIN TRANSMEM DOMAIN DOMAIN TRANSMEM DOMAIN CARBOHYD CONFLICT SEQUENCE Query Match **PRANSMEM** ARBOHYD DOMAIN brain. g ŏ ; 6 RHPRFHAPMFLLLGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTAS 122 123 VLSLLAIALERSLTMARRGPAPVSSRGRTLAMAAAAWGVSLLLGLLPALGWNCLGRLDAC 182 STVLPLYAKAYVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRARR 242 243 KPRSLALLRTLSVVLLAFVACWGPLFILLLLDVACPARTCPVLLQADPFIGLAMANSILN 302 303 PIIYTLINRDLRHALLRLVCC---GRHSCGRDPSGSQQSASAAEASGGLRRCL----PP 354 |-|||| :|||| :|| | |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || |- || Gaps 6 SEYLNPEKVQE----HYNYTKETLDMQETPSRKVASAFIIIL--CCAIVVENLLVLIAVA 59 SGLLRPAPVSEVIVLHYNYTGKLRGARYQPGAGLRADAVVCLAVCAFIVLENLAVLLVLG 62 SPECIES-Mouse; STRAIN-BALB/C; MEDIINE-97081105; PubMed-8922387; Hecht J.H., Weiner J.A., Post S.R., Chun J.; "Ventricular zone gene-1 (vg9-1) encodes a lysophosphatidic acid receptor expressed in neurogenic regions of the developing cerebral EXTRACELLULAR (POTENTIAL).

5 (POTENTIAL).

CYTOPLASHIC (POTENTIAL).

6 (POTENTIAL).

EXTRACELLULAR (POTENTIAL).

7 (POTENTIAL).

CYTOPLASMIC (POTENTIAL).

N-LINKED (GLOCARC...) (POTENTIAL).

N-LINKED (GLOCARC...) (POTENTIAL).

N-LINKED (GLOCARC...) (POTENTIAL).

N-LINKED (GLOCARC...) (POTENTIAL).

N-LINKED (GLOCARC...) (POTENTIAL).

N-LINKED (GLOCARC...) (POTENTIAL). Mus musculus (Mouse), and Rattus norvegicus (Rat). Eukaryota: Metazoa: Chordata; Cranlata; Vertebrata; Euteleostomi; Manmalla: Eutherla; Rodentla; Sciurognathi; Murldae; Murinae; Mus NCBL_TaxID=10090, 10116; 29;

This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to licensee1sb-sib.ch). for the forming cells.";

Eur. J. Neurosci. 10:1045-1053(1998).

-! FUNCTION: RECEPTOR FOR LYSOPHOSPHATIDIC ACID (LPA), A MEDIATOR OF

-! FUNCTION: RECEPTOR FOR LYSOPHOSPHATIDIC ACID (LPA), A MEDIATOR OF

-! SUNCELLULAR ACTIVITIES.

-!- SUMCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN.

-! SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.

-! SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS. Ø 66 RFHAPMFLLLGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLS 125 SEQUENCE FROM N.A.
SPECIES-Rat; STRAIN-SPRAGUE-DAWLEY; TISSUE-Olfactory bulb;
SPECIES-8424094; PubMed-9753172;
Allard J., Barron S., Diaz J., Lubetzki C., Zalc B., Schwartz J.-C.,
Sokoloff F.; 12 SEVIVLHYNYTGKLRGARYQP-----GAGLRADAVVCLAVCAFIVLENLAVLLVLGRHP 65 Macrae A.D., Premont R.T., Jaber M., Petersen A.S., Lefkowitz R.J.; "Cloning, characterization, and chromosomal localization of recl.3, member of the G-protein-coupled receptor family highly expressed in A rat G protein-coupled receptor selectively expressed in myelin-7 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
ADMITTATE (BY SIMILARITY).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL). GCRDD; GCR_100...
GCRDD; GCR_2559; -..
GCRDD; GCR_2559; -..
R MGD; MGI:108429; Edg2.
JR IncerPro; 1PR000216; GFCR_Rhodpsn..
DR Pfam; PR00001; 7tm_1; 1.
DR PRINTS; PR0148; LPARECEPTOR.
DR PROSITE; PS01237; G_PROTEIN_RECEP_F1_1; 1.
DR PROSITE; PS0226; G_PROTEIN_RECEP_F1_2; 1.
DR PROSITE; PS0226; G_PROTEIN_RECEP_F1_2; 1.
DR PROSITE; PS0226; G_PROTEIN_RECEP_F1_2; 1.
DR PROSITE; PS02062; G_PROTEIN_RECEP_F1_2; 1.
DR PROSITE; PS02062; G_PROTEIN_RECEP_F1_2; 1.
Tanismembrane; Glycoprotein; Palmitate.
--Intion; Lipoprotein; Palmitate.
50
EXTRACELULAR (POTENTIAL).
1 (POTENTIAL). 25.7%; Score 518.5; DB 1; Length 364; 34.1%; Pred. No. 2.3e-27; tive 70; Mismatches 129; Indels 23 1 (POTENTIAL). CYTOPLASMIC (POTENTIAL). 2 (POTENTIAL). EXTRACELLULAR (POTENTIAL). 6 (POTENTIAL). EXTRACELLULAR (POTENTIAL). 4 (POTENTIAL). EXTRACELLULAR (POTENTIAL). 3 (POTENTIAL). CYTOPLASMIC (POTENTIAL). -> S (IN REF. 2). B0FA6265AA668BB7 CRC64; CYTOPLASMIC (POTENTIAL).

```
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the Buropaen Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (see http://www.isb-sib.ch/announce/or send an email to licenseeisb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RFHFPIYYLMANLAAADFFAGLAYFYLMFNTGPNTRRLTVSTWLLRQGLIDTSLTASVAN 138
                                                                 186 lplyakayvlfcvlafygilaaicalyariycqvranarrlparpgtágttstrarkpr 245
                                                                                                                                                                                                            246 SLALLRTLSVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSLLNPII 305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      An S., Dickens M.A., Bleu T., Hallmark O.H., Goetzl E.J., Molecular cloning of the human Edg2 protein and its identification as a functional cellular receptor for lysophosphatidic acid."; Biochem. Biophys. Res. Commun. 231:619-6522(1997).
                                        LLAIALERSLTMARRGPAPVSSRGRTLAMAAAAWGVSLLLGLLPALGWNCLGRLDACSTV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens (Human).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primatea; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MIM; 602282;
InterPro; IPR000276; GPCR_Rhodpsn.
Pfam; PF00001; 7tm_1; 1.
PRNYS; PR01148; LPARCEPTOR.
PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.
G-protein coupled receptor; Transmembrane; Glycoprotein; Phosphorylation; Lipoprotein; Palmittate.
                                                                                                                                                                                                                                                                                                  YTLINRDLRHALLRLVCGRHSCGRDPS-GSQQSASA 341
                                                                                                                                                                                                                                                                                                                               11 YSYRDKEMSATFRQILCCQRNENPNGPTEGSDRSASS 347
                                                                                                                                                                                                                                                                                                                                                                                                                                               EDG2_HUMAN STANDARD; PRT; 364 AA. 092633; 000722; 000656; P78351; 01-NOV-1997 (Rel. 35, Created) 01-NOV-1997 (Rel. 35, Last sequence update) 20-AUG-2001 (Rel. 40, Last annotation update) LYSOPHOSPHATIDIC ACID RECEPTOR (EDG-2).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
MEDLINE-97224397; PubMed-9070858;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; U80811; AAC51139.1; --
EMBL; Y09479; CAA70686.1; --
EMBL; Y09479; CAA70687.1; --
EMBL; U78192; AAC0830.1; --
GCRDb; GCR_1342; --
GCRDb; GCR_1897; --
GCRDb; GCR_1896; --
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID-9606;
                                                                                                                                                                                                                                                                                                                                                                                                                        EDG2_HUMAN

TO 01-1003-10

DT 01-1003-10

DT 01-1004-10

DT 01-1004-10

DE EDG2_HUMAN

TO 01-1004-10

EDG2_HUMAN

TO 01-1004-10

EDG2_HUMAN

TO 01-1004-10

EDG2_HUMAN

TO 01-1004-10

EDG2_HUMAN

TO 01-1004-10

EDG2_HUMAN

TO 01-1004-10

EDG2_HUMAN

TO 01-10

EDG2_HUMAN

TO 01-10

EDG2_HUMAN

TO 01-10

EDG3_HUMAN

EDG1_HUMAN

EDG
  79
                                                                                                                                                                                                                                                                                                    306
                                                                                 139
                                                                             셤
                                        ò
                                                                                                                                                            셤
                                                                                                                                                                                                                                                     윱
                                                                                                                                                                                                                                                                                                                                    용
                                                                                                                        ò
                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                à
```

```
RFHAPMFLLLGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLS 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LLAIALERSLIMARRGPAPVSSRGRILAMAAAAWGVSLLLGLLPALGWNCLGRLDACSIV 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            186 LPLYAKAYVLFCVLAFVGILAAICALYARIYCOVRANARRLPARPGTAGTTSTRARRKPR 245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               246 SLALLRTLSVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSLLNPII 305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          27 NESIAFFYNRSCKHLATEWNTVSKLVMGLG-----ITVCIFIMLANLLVMVAIYVNR 78
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE-97165887; PubMed-9013780; Macrae A.D., Premont R.T., Jaber M., Petersen A.S., Lefköwitz R.J.; Cloning, characterization, and chromosomal localization of recl.3, member of the G-protein-coupled receptor family highly expressed in brain.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEVIVLHYNYTGKLRGARYQP-----GAGLRADAVVCLAVCAFIVLENLAVLLVLGRHP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
Bovidae; Bovinae; Bos.
                                                                                                                                                                                                                        7 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
PALMITATE (BY SIMILARITY)
PALNIKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                    25;
                                                                                                                                                                                                                                                                                                                                                                                       Length 364;
                                                                                                                                                                                                                                                                                                                                                                              25.1%; Score 506.5; DB 1; Length 32.9%; Pred. No. 1.4e-26; Ive 73; Mismatches 130; Indels
                1 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
2 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
3 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
4 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
5 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                          6 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
 EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                              -> G (IN REF. 2).
59E7722FD00DFE74 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   306 YTLTNRDLRHALLRLVCCGRHSCGRDPSGSQQSASAAEAS 345
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |: :::: ::: ::|| | :::| ::: ::| :::: ::| 311 YSYRDKEMSATFRQILCCQR---SENPTGPTESSDRSASS 347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-NOV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
15-JUL-1998 (Rel. 36, Last annotation update)
LYSOPHOSPHATIDIC ACID RECEPTOR (EDG-2) (RECl.3).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               364 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT;
                                                                                                                                                                                                                                                                                                                                W.
                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                41139
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STANDARD;
                                                                                                                                                                                                                                                                                                              340
364 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Bos taurus (Bovine).
                                                                                                                                                                                                                                                                                                                                                                                                Best Local Similarity
Matches 112; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
 1
76
76
1112
1112
1126
1145
1145
1164
1190
222
223
316
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=9913;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TISSUE Brain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EDG2_BOVIN
Q28031:
DOMAIN
TRANSMEM
DOMAIN
                                               TRANSMEM
DOMAIN
TRANSMEM
                                                                                                 DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                          TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                            LIPID
CARBOHYD
                                                                                                                                                                                                                                                                                                            CONFLICT
                                                                                                                                                      TRANSMEM
                                                                                                                                                                                         FRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                  Query Match
                                                                                                                                                                          DOMAIN
                                                                                                                                                                                                         DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                    12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         126
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EDG2_BOVIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EDG2
```

```
EDG2_SHEEP
P46628;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Simi
Matches 113;
                                                                                                                                                                                                                                                                                                                                                                                                                                    nterPro;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DOMAIN
TRANSMEM
                                                                                                                                           Bovidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
   RESULT 9
EDG2_SHEEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
                                      à
                                                                This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation-the Buropaen Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .
.
Brain Res. Mol. Brain Res. 42:245-254(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              353 MMSLLKTVVIVLGAFIICWTPGLVLLLLDVCCP--QCDVLAYEKFFLLLAEFNSAMNPII 310
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       126 LLAIALERSLTMARRGPAPVSSRGRTLAMAAAAWGVSLLLGLLPALGWNCLGRLDACSTV 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            139 LLAIAIERHITVFRMOLHARMSNRRVVVIVVIWTMAIVMGAIPSVGWNCICDIENCSNM 198
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          199 APLYSDSYLVFWAIFNLVTFVVMVVLYAHIFGYVRQRTMRMSRH-----SSGPRRNRDT 252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 246 SLALLRILSVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSLLNPII 305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          66 RFHAPMFLLLGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLS 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12 SEVIVLHYNYTGKLRGARYQP-----GAGLRADAVVCLAVCAFIVLENLAVLLVLGRHP 65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   27 NESIAFFYNRSGKYLATEWNTVTKLVMGLG-----ITVCIFIMLANLLVMVAIYUNR 78
                   DIVERSE CELLULAR ACTIVITIES.
SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN.
SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    186 LPLYAKAYVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRARRPR
                                                                                                                                                                                                                                                                                                                                                                                                                             CYTORLASMIC (POTENTIAL).
PALMITATE (BY SIMILARIIY).
N-LINKED (GLCNAC...) (POTENTIAL).
N-LINKED (GLCNAC...) (POTENTIAL).
DE94675BA407B2F6 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 364;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              25.0%; Score 505.5; DB 1; Length 33.5%; Pred. No. 1.6e-26; tive 70; Mismatches 131; Indels
                                                                                                                                                                                                       PRINTS; PRO1148; LPARECEPTOR.
PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.
PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
G-protein coupled receptor; Transmembrane; Glycoprotein;
                                                                                                                                                                                                                                                   Prosphery Lation; Lipoprotein; Palmitate.
                                                                                                                                                                                                                                                                                                      2 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                    4 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                            EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                               1 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                          (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                      (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              306 YTLINRDLRHALLRLVCCGRHSCGRDPS-GSQQSASA 341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    311 YSYRDKEMSATFROILCCORSENTSGPTEGSDRSASS 347
                                                                                                                                                                                                                                                                                                                                                                          5 (POTENTIAL).
CYTOPLASMIC (P
                                                                                                                                                                                                                                                                                                                                                                                                                       (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                  (POTENTIAL)
                                                                                                                                       or send an email to license@isb-sib.ch)
                                                                                                                                                                          scRDb; GCR_1218; -.
InterPro; IPR000276; GPCR_Rhodpsn.
                                                                                                                                                                                                                                                                                                                                                                                                                               327 P2
27 N 27
35 N 35 N 41070 MW;
                                                                                                                                                             EMBL; U48236; AAC48695.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches 113; Conservative
                                                                                                                                                                                              Pfam; PF00001; 7tm_1; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity
                                                                                                                                                                                                                                                                                 RANSMEM
                                                                                                                                                                                                                                                                                                                                                               DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                        PRANSMEM
                                                                                                                                                                                                                                                                                                                               RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                         CARBOHYD
                                                                                                                                                                                                                                                                                                                                                    RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                      RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
```

```
This SWISS: PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       coupled receptor EDG family.";
Recept. Channels 3:255-262(1995).
-!- FUNCTION: RECEPTOR FOR LYSOPHOSPHATIDIC ACID (LPA), A MEDIATOR OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12 SEVIVE.HYNYTGKLRGARYQP-----GAGLRADAVVCLAVCAFIVLENLAVLLVLGRHP 65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DIVERSE CELLULAR ACTIVITIES.
-1- SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN.
-1- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
                                           01-NOV.1995 (Rel. 32, Created)
01-NOV.1995 (Rel. 32, Last sequence update)
15-DEC-1998 (Rel. 37, Last annotation update)
LYSOPHOSPHATIOT ACID RECEPTOR (EDG-2).
EDG2 OR EDG-2
Ovis aries (Sheep).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoldea;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CYTOPLASMIC (POTENTIAL).
PALMITATE (BY SIMILARITY).
N-LINKED (GLCNAC...) (POTENTIAL).
N-LINKED (GLCNAC...) (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                       TISSUE-Pituitary pars tuberalis;
MEDINE-56430316; PubMed-8833998;
MABARA M.I., Brown R.C., Pu H., Gurney M.E., Dubocovich M.L.;
"Cloning and characterization of a new member of the G-protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 393;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       25.0%; Score 505.5; DB 1; Length 33.5%; Pred. No. 1.7e-26; Live 70; Mismatches 131; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3 (POTENTIAL).
CYTOPLASHIC (POTENTIAL).
4 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
5 (POTENTIAL).
CYTOPLASHIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pfam; PF00001; 7tm_1; 1.
PRINTS; PR01148; LPARECEPTOR.
PROSTE; P500237; G_PROTEIN_RECEP_F1_1; 1.
PROSTE; P500205; G_PROTEIN_RECEP_F1_2; 1.
G-protein coupled receptor; Transmenbrane; Glycoprotein;
Phosphorylation; Lipoprotein; Palmitate.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
2 (POTENTIAL).
EXTRACELLUTAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   entities requires a license agreement (See http://www.or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      356E961153C345FC CRC64
393 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6 (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IPR000276; GPCR_Rhodpsn.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      44433 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; U18405; AAB52368.1; -. GCRDb; GCR_1271; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
STANDARD;
                                                                                                                                                                                                                                                                                          Caprinae; Ovis
                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   393 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                NCBI_TaxID-9940;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
```

;

180

```
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation. The Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce.or send an email to licenseelsb-sib.ch).
RFHAPMFLLLGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLS 125
                                   LLAIALERSLTMARRGPAPVSSRGRTLAMAAAAWGVSLLLGLLPALGWNCLGRLDACSTV 185
                                                                                                                                                 246 SLALLRTLSVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSLLNPII 305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -i- SUBCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN.
-i- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Wilkie T.M., Chen Y., Gilbert D.J., Moore K.J., Yu L., Simon M.I., Copeland N.G., Jenkins N.A., "Identification, chromosomal location, and genome organization of mammalian G-protein-coupled receptors."; Genomics 18:175-184(1993).
                                                                                                                                                                                                                           186 LPLYAKAYVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRARRKPR
                                                                                                                                                                                                                                                                                                                                                                                  253 MASLIKTVVIVLGAFIICWTPGLVLLLDVCCP--QCDVLAYEKFFLLLAEFNSAMNPII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mus musculus (Mouse).
Eukaryota, Metazoa, Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutelaria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
NCBI_TāxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-OCT-1996 (Rel. 34, Created)
01-OCT-1996 (Rel. 34, Last sequence update)
15-JUL-1998 (Rel. 36, Last annotation update)
PROBABLE G PROTEIN-COUPLED RECEPTOR EDG-1 LIKE (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
3 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       4 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11 YSYRDKEMSATFRQILCCQRSENTSGPTEGSDRSASS 347
                                                                                                                                                                                                                                                                                                                                                                                                                                                    306 YILINRDLRHALLRLVCCGRHSCGRDPS-GSQQSASA 341
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5 (POTENTIAL).
CYTOPLASMIC (PC
6 (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TISSUE=Test1s;
MEDLINE=94116980; PubMed=8288218;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; L20334; AAA16846.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EDGL_MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
TRANSMEM
DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 10
EDGL_MOUSE
                                                        79
                                                                                                             126
99
                                                                                                          ò
                                                                                                                                                             요
                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DD PARTE TETTET TETTET TO BE SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY SEED BY S
```

```
SEQUENCE OF 1-292 FROM N.A.

MEDLINE=95154831; PubMed=7851889;

MARCHESE A., Docherty J.M., Nguyen T., Helber M., Cheng R.,

Hang H.H.Q., Tsul L.-C., Shl X., George S.R., O'Dowd B.F.;

"Cloning of human genes encoding novel G protein-coupled receptors.";

Genomics 23:609-618(1994).

I- FUNCTION: ORPHAN FRCEPTOR. THE ACTIVITY OF THIS RECEPTOR IS

MEDIATED BY G PROTEINS WHICH ACTIVATE ADENYLATE CYCLASE.

SUCCELLULAR LOCATION: INTEGRAL MEMBRANE PROTEIN.

-I SUECELLULAR LOCATION: EXPRESSED PREDOMINANTLY IN THE CENTRAL NERVOUS
                                                                                                                          RFHAPMFLLLGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLS 125
                                                                                                                                                                                     LLAIALERSLIMARRGPAPVSSRGRILAMAAAAWGVSLLLGLLPALGWNCLGRLDACSTV 185
                                                                                                                                                                                                                                                  LPLYAKAYVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRARRPR 245
                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                           61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        G-protein-
                                                                                                                                            Eukaryota, Metazoa, Chordata, Craniata, Vertebrata, Buteleostomi,
Mammalia, Eutheria, Primates, Catarrhini, Hominidae, Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-NOV-1995 (Rel. 32, Created)
01-NOV-1995 (Rel. 32, Last sequence update)
20-ACG-2001 (Rel. 40, Last annotation update)
PROBABLE G PROTEIN-COUPLED RECEPTOR GPR3 (ACCA ORPHAN RECEPTOR)
                                                                                               15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eggerickx D., Denef J.F., Labbe O., Hayashi Y., Refetoff S., Vassart G., Parmentier M., Libert F.; Molecular clonding of an orphan G-protein-coupled receptor that constitutivels adenylate cyclase."; Blochem. J. 309:837-843(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDIINE-96015070; PubMed-8530049; Song Z.-H., Mod1 W., Bonner T.I.; Modecular cloning and chromosomal localization of human genes encoding three closely related G protein-coupled receptors."; Genomics 28:347-349(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Isolation and chromosomal localization of a novel human G-pro
coupled receptor (GPR3) expressed predominantly in the central
                                                                Length 180;
                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sutherland
                91D99CF8769C4CBD CRC64;
                                                                                              53;
                                                              DB 1;
                                                             21.8%; Score 440.5; DB 1
llarity · 50.5%; Pred. No. 1.5e-22;
Conservative 27; Mismatches 53
                                                                                                                                                                                                                                                                                                                                                                                                                            330 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ilsmaa T.P., Kiefer J., Liu M.L., Baker E.,
                                                                                                                                                                                                                                                                                                                                                                                                                            PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDLINE-95213036; PubMed-7698767;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENÇE FROM N.A.
MEDLINZ-95366960; Pubmed-7639700;
              19364 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    nervous system.";
Genomics 24:391-394(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                            STANDARD;
                                                                                                                                                                                                                                                                                                                                           167 TLALLKTVTIVL 178
                                                                                                                                                                                                                                                                                                               SLALLRTLSVVL 257
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens (Human)
              180 AA;
                                                                          Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GPR3 OR ACCA.
                                                             Query Match
Best Local Simi
Matches 97;
                                                                                                                                                                                                                                                                                                                                                                                                                          HUMAN
NON_TER
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                    P46089;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Shine
                                                                                                                                                                                                                                                                                                                                                                                                             GPR3_HUMAN
                                                                                                                           99
                                                                                                                                                                                       126
                                                                                                                                                                                                                    62
                                                                                                                                                                                                                                                  186
                                                                                                                                                                                                                                                                                122
                                                                                                                                                                                                                                                                                                             246
 SO
                                                                                                                                                       엄
                                                                                                                                                                                                                   요
                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                              요
                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                             ö
```

```
(Rel. 33,
                                                                                                                                                                               Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                             GCR_2023; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      317
330
332
334 AA;
                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                                                                           NCBI_TaxID=9606;
                                                                        RESULT 12
GPRC_HUMAN
ID GPRC_HUMAN
P4775;
'-FBB-199'
                                                                                                                           01-FEB-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                       MIM; 600752;
                                 323 C 323
                                                     314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MOD_RES
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CARBOHYD
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DOMAIN
FRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RANSMEM
                                                    314 C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DOMAIN
                                                                                                                   ö
                                       This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss institute of Bioinformatics and the EMBL outstation the European Bioinformatics institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@lsb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                12;
                                                                                                                                                                                                      InterPro; IPR000276; GPCR_Rhodpsn.
Pfam; PF00001; 7tm_1; 1.
PRINTS; PR000644; GPR3ORPHANR.
PRINTS; PR00664; GPR3ORPHANR.
PROSTITS; PS00237; G_PROTEIN_RECEP_F1_1; 1.
PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
G-protein coupled receptor; Transmembrane; Glycoprotein; Lipoprotein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           96 SGPLTLKLSPALWFAREGGVFVALTASVLSLLAIALERSLTMARR----GPAPVSSRGRT 151
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   152 LAMAAAAWGVSLLLGLLPALGWNCLGRLDACSTVLPLYAKAYVLFCVLAFVGILAAICAL 211
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        212 YA---RIYC----QVRANARRLPARPGTAGTTSTRARRKPRSLALLRTLSVVLLAFVACW 264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                265 GPLFLLLLLDVA--CPARTCPVLLQADPFLGLAMANSLLNPIIYTLTNRDLRHALLRLVC 322
SYSTEM, AND AT LOW LEVELS IN THE LUNG, KIDNEY, TESTIS, OVARY AND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 17.7%; Score 357; DB 1; Length 330; Best Local Similarity 35.5%; Pred. No. 7.5e-17; Matches 107; Conservative 40; Mismatches 108; Indels 46; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               39 DAVVCLAVCAFIVLENLAVLLVLGRHPRFHAPMFLLLGSLTLSDLLAG---AAYAANILL 95
                   SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N-LINKED (GLCNAC. ..) (POTENTIAL).
PHOSPHONYLATION (POTENTIAL).
PHOSPHONYLATION (POTENTIAL).
PHOSPHONYLATION (POTENTIAL).
OF92E89200968DIE CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                              CYTOPLASMIC (POTENTIAL).
PALMITATE (BY SIMILARITY).
BY SIMILARITY.
N-LINKED (GLCNAC.
                                                                                                                                                                                                                                                                                                                     2 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                   5 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
6 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                        EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                               4 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                          3 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                              CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                          (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           35009 MW;
                                                                                                                     EMBL; U18550; AAB60402.1; -. EMBL; L3281; AAA73560.1; -. EMBL; X83956; CAA58787.1; -. EMBL; U13668; AAA64594.1; -. GCRDb; GCR_1844; -.
                                                                                                                                                                                                                                                                                Phosphorylation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         330 AA;
                                                                                                                                                                                    GCR_2034; -
                                                                                                                                                              GCRDb; GCR_1844;
GCRDb; GCR_2021;
                                                                                                                                                                                              MIM; 600241;
                                                                                                                                                                                                                                                                               Palmitate;
                                                                                                                                                                                                                                                                                       DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                      DISULFID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MOD_RES
SEQUENCE
                                                                                                                                                                                                                                                                                                                      PRANSMEM
                                                                                                                                                                                                                                                                                                                                          RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                  RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                      FRANSMEM
                                                                                                                                                                                                                                                                                                                                                               TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                           FRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                    DOMAIN
                                                                                                                                                                                                                                                                                                                                 DOMAIN
ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         a
```

```
This SWISS:PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation between the Buoinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@lab-sib.ch).
261 LPFTVYCLLGDAHSPPLYTYLTLLP-----ATYNSMINPIIYAFRNQDVQKVLMAVCC 313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              InterPro; IPR000276; GPCR_Rhodpsn.
Pfam; PF00001; 7tm_1; 1.
PRIMTS; PR00644; GPRORPHANR.
PRIMTS; PR006509; GPR120PHANR.
PROSITE; P500237; G_PROTEIN_RECEP_F1_1; 1.
PROSITE; P507621; G_PROTEIN_RECEP_F1_2; 1.
PROSITE; P507621; G_PROTEIN_RECEP_F1_2; 1.
PR051TE; P507621; G_PROTEIN_RECEP_F1_2; 1.
PR051TE; P507621; G_PROTEIN_RECEP_F1_2; 1.
PR051TE; P507621; G_PROTEIN_RECEP_F1_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Dukaryote, Metazoa; Chordata, Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
N-LINKED (GLCNAC. . .) (POTENTIAL)
N-LINKED (GLCNAC. . .) (POTENTIAL)
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PALMITATE (BY SIMILARITY).
PHOSPHORYLATION (POTENTIAL)
PHOSPHORYLATION (POTENTIAL)
618334A6582D744B CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
2 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          S (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                01-FEB-1996 (Rel. 33, Last sequence update)
20-AUG-2001 (Rel. 40, Last annotation update)
PROBABLE G PROTEIN-COUPLED RECEPTOR GPR12.
                                                                                                                                                                                                                                                          334 AA
                                                                                                                                                                                                                                                                                                          Created)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ..
E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; U18548; AAA91630.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         317
330
332
36730
                                                                                                                                                                                                                                                       STANDARD;
```

```
Transmembrane; Glycoprotein; Lipoprotein;
                                                                                                                                                                                                                   BY SIMILARITY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT;
                                                                                                                                                                                                                                                                  ¥,
oupled receptor;
Phosphorylation.
                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity 34.5%;
Matches 106; Conservative 4
                                                                                                                                                                                                                                                                36589
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STANDARD;
                                 66
78
102
1114
1136
1157
1177
2202
221
221
2249
3333
334
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            333 SCSQQSA 339
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    322 SSLSQRA 328
         Palmitate;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GPR3_MOUSE
P35413;
                                                                                                                                                                                                                                       MOD_RES
MOD_RES
SEQUENCE
                                                                  DOMAIN
TRANSMEM
                                                                                         DOMAIN
TRANSNEM
                                                                                                                                                           DOMAIN
TRANSMEM
                                                                                                                                                                                                       CARBOHYD
DISULFID
                                 RANSHEM
                                                       RANSMEM
                                                                                                                           RANSMEM
                                                                                                                                               TRANSMEM
                                                                                                                                                                                             CARBOHYD
                                             DOMAIN
                                                                                                                DOMAIN
                                                                                                                                     DOMAIN
                       DOMAIN
                                                                                                                                                                                  DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      T 14
MOUSE
                                                                                                                                                                                                                                                                                                                                                                                           66
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                274
KKKK
KELLILIKE KELLILIKE
KELLILIKE KELLILIKE
KELLILIKE KELLILIKE
                                                                                                                                                                                                                                                                                                                                                                                           õ
                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    å
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ద
                                                                                                                                                                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -1- FUNCTION: ORPHAN RECEPTOR.
-1- SUBCELLOUAR LOCATION: INTEGRAL MEMBRANE PROTEIN.
-1- TISSUE SPECIFICATY: EXPRESSED PREDOMINANTLY IN THE FOREBRAIN AND A LESSER EXTENT IN THE HIDBBRIN. LOWER EXPRESSION IN THE LIVER.
-1- SIMILARITY: BELONGS TO FAMILY 1 OF G-PROTEIN COUPLED RECEPTORS.
                                                                                                         99 LILKLSPALWPAREGGVFVALTASVLSLLAIALERSLT----MARRGPAPVSSRGRTLAM 154
                                                                                                                         161 LVMLWGTSICLGLLPVMGWNCLRDESTCSVVRPL-TRNNAAILSVSFLFMFALMLQLYIQ 219
                                                                                                                                                                                                                  Gaps
                                                                           155 AAAAWGVSLLLGLLPALGWNCLGRLDACSTVLPLYAKAYVLFCVLAFVGILAAICALYAR 214
                                                              39 DAVVCLAVCAFIVLENLAVLLVIGRHPRFHAPMFLLLGSLTLSDLLAGAAYAANILLSGP 98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           *Molecular cloning of a novel putative G protein-coupled receptor (GPCR21) which is expressed predominantly in mouse central nervous
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN-BALB/C; TISSUE-Brain;
MEDLINE-94085630; PubMed-0262253;
Saeki Y., Ueno S., Mizuno R., Nishimura T., Fujimura H., Nagai Y.,
Yanagihara T.;
                                                                                                                                                                                                   215 IYCQVRANARRLPARPGTAGTTSTRARRKPRSLALLRTLSVVLLAFVACWGPLFLL-LLL
                                                                                                                                                                                                                                                                                                                                                                                                       Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
NCBI_TaxID=10090;
                                          27;
                    Length 334;
                                                                                                                                                                                                                                                              275 DYTYPSIYTYATLLP-----ATYNSIINPVIYAFRNQEIQKALC-LICCG 318
                                                                                                                                                                                                                                               274 DVACPA-RTCPVLLQADPFLGLAMANSLLNPIIYTLTNRDLRHALLRLVCCG 324
                                          Indels
                                                                                                                                                                                                                                                                                                                                                     01-JUN-1994 (Rel. 29, Created)
01-JUN-1994 (Rel. 29, Last sequence update)
01-JUN-1997 (Rel. 35, Last annotation update)
PROBABLE G PROTEIN-COUPLED RECEPTOR GPR12 (GPCR01).
GPR12 OR GPCR12.
                  ; Score 352.5; DB 1;
; Pred. No. 1.5e-16;
44; Mismatches 120;
                                                                                                                                                                                                                                                                                                                                   334 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Lett. 336:317-322(1993)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; D21061; BAA04640.1; -.
                                       Matches 101; Conservative
                                                                                                                                                                                                                                                                                                                                STANDARD;
                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                GPRC_MOUSE
                   Query Match
                              Local
                                                                                                                                                                                                                                                                                                         RESULT 13
GPRC_MOUSE
                                                              ö
                                                                                 ద
                                                                                                          ð
                                                                                                                           8
                                                                                                                                                     å
                                                                                                                                                                        ద
                                                                                                                                                                                                õ
                                                                                                                                                                                                                       გ
                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                   g
```

```
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   48 DIVLC-SSGTLICCENAVVVLIFHSPSLRAPMFLLIGSLALADLLAGLGLIINFVPA-- 104
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           105 -YLLQSEATKLVTIGLIVASFSASVCSLLAITVDRYLSLYYALTYHSERTVTF---TYVM 160
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             161 LYMLWGTSICLGLLPVWGWNCLRDESTCSVVRPL-TKNNAAILSISFLFWFALMLQLY10 219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         220 ICKIVMRHAHQIALQHHFLATSHYVTTRKGVS-----TLALILGTFAACWMPFTLYSLIA 274
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DVACPA-RICPVLLQADPFLGLAMANSLLNPIIYTLTNRDLRHALLRLVCCGRHSCGRDP 332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       L'ILKLSPALWFAREGGVFVALTASVLSLLAIALERSLT----MARRGPAPVSSRGRTLAM 154
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             155 AAAAWGVSLLIGILPALGWNCIGRLDACSTVLPLYAKAYVLFCVLAFVGILAAICALYAR 214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  215 IYCQVRANARRLPARPGTAGTTSTRARRKPRSLALLRTLSVVLLAFVACWGPLFLL-LLL 273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               39 DAVVCLAVCAFIVLENLAVLLVLGRHPRFHAPMFLLLGSLTLSDLLAGAAYAANILLSGP 98
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              275 DYTYPSIYTYATLLP-----ATYNSIINPVIYAFRNQEIQKALC-LICCG---C-IP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
STRAIN-BALB/C; TISSUE-Brain;
MEDLINE-94085630; PubMed-8262253;
Saeki Y., Ueno S., Mizuno R., Nishimura T., Fujimura H., Nagai Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryoka; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                          7 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL).
N-LINKED (GLCNAC. .) (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          32;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17.3%; Score 350; DB 1; Length 334; 34.5%; Pred. No. 2.2e-16; 1.1ve 43; Mismatches 126; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PHOSPHORYLATION (POTENTIAL).
PHOSPHORYLATION (POTENTIAL)
                                                                                                                                                                                                      4 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PALMITATE (BY SIMILARITY).
                             1 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
2 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                            EXTRACELLULAR (POTENTIAL).
EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3BE0EE4371F55F5B CRC64;
                                                                                                                                                                                                                                                                    5 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
6 (POTENTIAL).
                                                                                                                                                                                CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-UUN-1994 (Rel. 29, Created)
01-UUN-1994 (Rel. 29, Last sequence update)
01-UNV-1997 (Rel. 35, Last annotation update)
PROBABLE G PROTEIN-COUPLED RECEPTOR GPR3 (GPCR21).
GPR3 OR GPCR3.
```

12;

```
151 TLAMAAAAWGVSLLLGLLPALGWNCLGRLDACSTVLPLYAKAYVLFCVLAFVGILAAICA 210
                                                                                                                                                             468 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CYTOPLASMIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      InterPro; IPR000276; GPCR_Rhodpsn.
                                                                                                                                                                                                                                                                                                                       TISSUE-Tes't1s;
MEDLINE-97001167; PubMed-8812500;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; X94401; CAA64174.1; -. GCRDb; GCR_1110; -.
                                                                                                                                                             STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         408
308
168
168
168
                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
                                                                                                                                                          CB1A_FUGRU
Q98894;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DOMAIN
                                                                                                                                      RESULT 15
CB1A_FUGRU
                                         211
                    셤
                                                           g
                                                                                  ŏ
                                                                                                     8
                                                                                                                                                                      à
                                                                                                                                                                            This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss institute of Bioinformatics and the EMBL outstation the European Bloinformatics institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (see http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11;
                                               PIR; $40454; $40454.

GCRDb; GCR_0906; --

MGD; MGI:101908; Gpcr3.

FiniterPro; IPR000276; GPCR_Rhodpsn.

PROMO04; FTM_1; 1.

PRINTS; PR00644; GPRORPHANR.

PRINTS; PR00649; GPR3ORPHANR.

PROSITE; PS501262; G_PROTEIN_RECEP_F1_1; 1.

PROSITE; PS501262; G_PROTEIN_RECEP_F1_2; 1.

G-protein coupled receptor; Transmembrane; Glycoprotein; Lipoprotein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               44 DVVLCIS-GTLVSCENALVVAIIVGTPAFRAPMFLLVGSLAVADLLAGIGLVLHFAADFC 102
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            95 LSGPLTLKLSPALWFAREGGVFVALTASVLSLLAIALERSLTMARR----GPAPVSSRGR 150
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  39 DAVYCLAVCAFIVLENLAVLLVLGRHPRFHAPMFLLLGSLTLSDLLAGAA----YAANIL 94
                    (GPCR21) which is expressed predominantly in mouse central nervous
            receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               44;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17.2%; Score 347; DB 1; Length 330; 34.3%; Pred. No. 3.4e-16; Live 43; Mismatches 110; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PHOSPHORYLATION (POTENTIAL).
PHOSPHORYLATION (POTENTIAL).
PHOSPHORYLATION (POTENTIAL).
89122C57945482B3 CRC64;
          protein-coupled
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       7 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
N-LINKED (GLCNAC...) (POT
PALMITATE (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        4 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                               EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                          EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                    3 (POTENTIAL). CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                    (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                           (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                 (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SIMILARITY
           putative.G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CYTOPLASMIC
         cloning of a novel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           35453 MW;
                                       . 336:317-322(1993).
                                                                                                                                                                                                                                                                 EMBL; D21062; BAA04641.1; -. PIR; S40454; S40454.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match 17.2%;
Best Local Similarity 34.3%;
Matches 103; Conservative 4
                                                                                                                                                                                                                                                                                                                                                                                       Palmitate; Phosphorylation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         330 AA;
                               system.";
FEBS Lett.
                                                                                                                                                                                                                                                                                                                                                                                                                    DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TRANSMEM
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOD_RES
MOD_RES
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                           TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                    TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MOD_RES
                                                                                                                                                                                                                                                                                                                                                                                                 DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                           DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
```

```
212 LYAQICRIVCRHAQQIALQRHLLPA----SHYVATRKG----IATLAVVLGAFAAC 259
                                                                                                                                                                    Fugu rubripes (Japanese pufferfish) (Takifugu rubripes).
Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopteryyjii, Neopteryyjii, Teleostei; Buteleostei; Neoteleostei;
Acanthomoxpha; Acanthopteryyji; Percomorpha; Tetraodontiformes;
Tetraodontidae; Takifugu.
                                                            LYA---RIYC----QVRANARRLPARPGTAGTTSTRARRKPRSLALLRTLSVVLLAFVAC
                                                                                                                                            264 WGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSLLNPIIYTLTNRDLRHALLRLVCC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         N-LINKED (GLCNAC. . .) (POTENTIAL).
N-LINKED (GLCNAC. . .) (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             InterPro; Lrnuct, 1.
Prim; PR0001; 77m1; 1.
PRIMIS: PR00037; CANNABINOIDR.
PROSITE; PS00237; G_PROTEIN_RECEP_F1_1; 1.
PROSITE; PS50262; G_PROTEIN_RECEP_F1_2; 1.
G-protein coupled receptor; Transmembrane; Glycoprotein.
115 EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         4 (POTENTIAL).
EXTRACELLULAR (POTENTIAL)...
5 (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2 (POTENTIAL).
EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3 (POTENTIAL). CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            5 (POTENTIAL).
CYTOPLASMIC (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (POTENTIAL).
                                                                                                                                                                                                                                                                                                                              01-NoV-1997 (Rel. 35, Created)
01-NOV-1997 (Rel. 35, Last sequence update)
01-NOV-1997 (Rel. 35, Last annotation update)
CANNABINOID RECEPTOR TYPE 1A.
```

```
SQ SEQUENCE 468 AA; 52391 MW; B8628C1B043B42D7 CRC64;
```

12;											
Query Match Best Local Similarity 30.7%; Pred. No. 4.6e-16; Matches 103; Conservative 59; Mismatches 121; Indels 52; Gaps 12;	38 ADAVVCLAVCAFIVLENIAVLLVLGRHPRFHA-PWFLLLGSLTLSDLLAGAAYAANILLS 96	17 AVAY DSLILOSFITV DENLY VLCY LFÜSKILKKPSIHF IGSLAVADLLGSVIFYISFLÜF 176 97 GPLILKLSPALWFAREGGVFVALTASVLSLLAIALERSLIMARRGPAPVSSRGRILA 153	177 HVFHKKDSPNVFLFKLGGVTASFTASVGSLFLTAIDRYISIHRPLAYRRIVTRTKA 232 154 MAAAAWGVSLLIGILPALGWNCIGRIDACSTVI.PIYARAYVI.FCVI.ABVGTIAATG 200	: :::::	210 ALYARIYCOVRANARRLPARPGTAGTTSTRARRKPRSLALLRTLSVVL 257	LSRTSQKSLVVYSAEGTKVQTTRPEQTRMDIRLAKTLVLIL 348	258 LAFYACWGPLFLLLLDVACPARTCPVLLQADPFLGLAMANSLLNPIIYTLT 309	349 AVLVICWGPLLAIMVYDLFWKMDDNIKTVFAFCSMLCLLNSTVNPIIYALR 399	SRDPSGSQQSASAAEA 344	SRDLRHAFLSSCHACRGSAQQLDNSLES 427	
ratch 17 cal Similarity 30 103; Conservative	ADAVVCLAVCAFIVLENLAN	GPLTLKLSPALWFAREGGVI	HVFHKKDSPNVFLFKLGGV MAAAAWGVSLLLGLLPAI	: ::::: VIAFCMMWTISIIIAVLPL	ALYARIYCOVRANARRLI	IIYAYIYILWKAHHHAVRMI	LAFVACWGPLFLLLLLD	AVLVICWGPLLAIMVYDLF	310 NRDLRHALLRLVCCGRHSCGRDPSGSQQSASAAEA 344		
Query M Best Lo Matches				·						400	
	8	8 8	g 5	셤	ò	셤	ò	ద	õ	셤	

Search completed: January 16, 2002, 23:44:45 Job time: 352 sec

		Seconds) 11 updates/sec	ctga 1197					<u>.</u>	RES AAH XX XX XX XX XX XX XX XX XX XX XX XX XX										
GenCore version 4.5 Copyright (c) 1993 - 2000 Compugen Ltd.	nucleic search, using sw model	January 16, 2002, 22:30:08; Search time 156.38 Sec (without alignments) 6562.337 Million cell	US-09-842-316-1 1197 1 atggagtcggggctgctgcgcagaaccggctgcagactga	IDENTITY_NUC Gapop 10.0 , Gapext 1.0	930621 seqs, 428662619 residues	hits satisfying chosen parameters: 1861242	length: 0 length: 200000000	Minimum Match 0% Maximum Match 100% Listing first 45 summaries	SIDS2/gcgdata/geneseq/geneseqn/NA1980.DAT:* SIDS2/gcgdata/geneseq/geneseqn/NA1981.DAT:* SIDS2/gcgdata/geneseq/geneseqn/NA1991.DAT:*	ř	OM nucleic - nuc	Run on:	Title: Perfect score: Sequence:	Scoring table:	Searched:	Total number of	Minimum DB seq 1 Maximum DB seq 1	Post-processing: Minimum Maximum Listing	Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

	Description	Human nGPCR9 codin	Nucleotide sequenc	Human PFI-006 enco	DNA encoding a 142	Human orphan G pro	Human G protein co	Rat G protein-coup	Mouse EDG1 nucleot	Human EDG-2 coding	LPA receptor-relat	Human nGPCR9 codin
SUMMARIES	Ω		AAF25128	AAF87722	AA261489	AAD01132	AAA46033	AAD02561	AAC63385	AAX36566	AAS00257	AAH50973
	98	22	22	22	21	21	21	22	21	20	22	22
	Query e Match Length DB	1197	1197	1198	1980	1503	1503	1203	1149	1149	1149	270
æ	Query Match	100.0	100.0	8.66	7.66	99.6	9.66	64.7	22.7	22.5	22.5	22.4
	Score	1197	1197	1195	1193.8	1192.2	1192.2	774	271.2	269.6	269.6	268.4
	Result No.	-	~	m	4	S	ø	7	ω	σ	10	11

cDNA encoding rat-e DNA encoding rat-e Human EDG-1c recep Human edg6 DNA. H Human EST-derived CDNA encoding a G-		Anglogenesis prote Human edg-1 gene. Human EDG family H CDNA sequence of t EDG-1-11ke G-prote Nucleotide sequenc Sequence encoding Murine EDG5 gene. Human EDG-5 coding LPA receptor-relat	H118 CDMA encoding DNA encoding rat H Murine EDG3 cDNA. Rat G protein-coup Murine edg6 DNA. Human HBCH90 nucl Human EDG-4 coding Nucleotide sequenc
AAT58506 AAV83936 AAZ09756 AAX82789 AAH98657 AAZ99797	AAX59366 AAX33657 AAX36567 AAX59367 AAX23300 AAX89706 AAX32488 AAA532488 AAA506163	ART 74415 AAC14147 AAC14147 AAC 32489 AAC 32489 AAC 32560 AAC 3260 AAC 319 AAC 319 AAC 319 AAC 319 AAC 319 AAC 319 AAC 319 AAC 319 AAC 319	AAT58505 AAV84039 AAF84497 AAX82790 AAX40303 AAX36568 AAA96162
1222 2222 21222 21222	22120212220	55012000155	18 22 22 20 21 21 21 21
2232 2232 1149 1155 1568	2270 1137 1137 1176 1170 1062 1062	1059	2754 2754 2754 1137 1140 1161 1260 1734 1734
21.9 21.19 20.9 20.9 20.9	000000000000000000000000000000000000000	20020202020202020202020202020202020202	17.3 16.6 16.6 12.4 12.4
261.6 261.6 252 250.4 250.4	250.4 250.4 248.8 248.4 247.2 24.7 24.5 24.5 24.5	22222222222222222222222222222222222222	206.6 206.6 198.6 198.6 148.6 148.6
12.2 12.3 15.4 17.4	118 122 122 123 126 126 126 126 126 126 126 126 126 126		8 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4

ALIGNMENTS

G protein-coupled receptor; nGPCR; seven transmembrane receptor; signal transduction; schizophrenia; thyroid disorder; renal failure; rhematoid arthritis; CNS disorder; infection; metabolic disease; cardiovascular disease; proliferative disorder; hormonal disorder; neurological disorder; neuronal disorder; histelmer's disease; cancer; attention ceficit-hyperactivity disorder/attention deficit disorder; Parkinson's disease; migraine; senile dementia; inflammatory disease; neuroprotective; ds. SULT 1 H51007 AAH51007 standard; DNA; 1197 BP. Human nGPCR9 coding sequence #2. 28-AUG-2001 (first entry) AAH51007;

WO200136473-A2 Homo saptens 25-MAY-2001

16-NOV-1999; 99US-0165838. 17-NOV-1999; 99US-0166071. 19-NOV-1999; 99US-0166678. 22-FEB-2000; 2000US-0184129. 28-FEB-2000; 2000US-0185421. 16-NOV-2000; 2000WO-US31581. *********

Thu

```
The present invention relates to novel G protein-coupled receptors (GPCRX; where x is 1, 3, 4, 5, 9, 11, 12, 14-18, 20, 21, 22, 24, 27, 28, 31-38, 40, 41, 53-60) and their coding sequences. The present sequence is the coding sequence toth G protein-coupled receptor. G sequence is the coding sequence buch G protein-coupled receptor. G PCRS are also known as seven transmembrane receptors and function in signal transduction. The inGPCRX coding sequences are useful for c screening a human to diagnose a disorder affecting the brain or a genetic predisposition, specifically schizophrenia. nGPCRX are useful for GPCRX in a sample is useful for treating schizophrenia. Detection of nGPCRX in a sample is useful as a diagnostic tool for disease or disorders, infections such as HIVIT, metabolic and cardiovascular diseases, proliferative disorders, renal failure, rheumatoid arthritis, conference of servity have the utility for treating neurological disorders, of nGPCRX activity have the utility for treating neurological disorders, of disease, parkinson's disease, migraine and senile dementia. Additional disorders such as Alzhaner's disease, parkinson's disease, migraine and senile dementia. Additional disorders concers, concers, relating a liments such as asthma, and inflammatory diseases e.g.
                                                                                                                                                                                                                                                                                          ₹
                                                                                                                                                                                                                                                                                                                                                                                        New G protein-coupled receptor (mGPCR-x) and its encoding polynucleotide useful for diagnosing and treating e.g. schizophrenia
                                                                                                                                                                                                                                                                   RR, Lind P, Slightom J; Ruff V, Sejlitz T, Huff
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 1197 BP; 139 A; 449 C; 389 G; 220 T; 0 other;
                                                                                                                                                                                                                                                                   Parodi LA, Hiebsch
PS, Bannigan CM, R
                                                                                                                                                                                                                                                                                                                                                                                                                                                     English
28-FEB-2000; 2000US-0185554.
02-MAR-2000; 2000US-0186530.
09-MAR-2000; 2000US-0188114.
17-MAR-2000; 2000US-0198114.
21-MAR-2000; 2000US-0198110.
20-APR-2000; 2000US-0198568.
02-MAY-2000; 2000US-0201190.
08-MAY-2000; 2000US-0201190.
                                                                                                                                                                                                                             (PHAA ) PHARMACIA & UPJOHN CO
                                                                                                                                                                                                                                                                                                                                                                                                                                                   261pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   inflammatory bowel disease.
                                                                                                                                                                                                                                                                 od LS, I
Kaytes I
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 4; Pages 88-895
                                                                                                                                                                                                                                                                                                                            WPI; 2001-389826/41.
P-PSDB; AAG80967.
                                                                                                                                                                                                                                                                   Mood
                                                                                                                                                                                                                                                                                        Schellin KA,
                                                                                                                                                                                                                                                                   Vogel1 G,
```

g 5

ö

240 tacaccggcaagctccgcggtgcgcgctaccagccggtgcgggcctgcgccgacgcc 120 tacaccggcaagetecgcggtgcgcgctaccagccgggtgccggcctgcgcgccgacgcc 120 gtggtgtgcctggcggtgtgcgccttcatcgtgctagagaatctagccgtgttgttggtg 180 181 19 121 121 181 241 셤 ö g õ 셤 ò

pain; aycggctcggagcgctcatcgccccagcgcgcgacgggctggacaccagcggctccacaggc 1140 1020 720 1081 ageggeteggagegeteategeeceagegegaegggetggaeaceageggetecaeagge 1140 900 9 99 720 960 420 900 780 840 900 900 960 HIV-1; HIV-2; hypotension; 661 gccaacgcgcgcgcctgccggcacggcccgggactgcggggaccacctcgacccggggcg 3tgtcgctgctcctcggggctcctgccagcgctgggattgcctgggtcgcctggac gocaacgogogocotgocggcacggcacgggactgcggggaccacctcgacccgggcg gictgctgcggacgccactcctgcggcagagacccgagtggctcccagcagtcggcgagc Human; G-coupled protein receptor; AXOR29; infection; cancer; diabetes; obesity; anorexia; bulimia; asthma; Nucleotide sequence of a human AXOR29 polypeptide. BP. AAF25128 standard; DNA; 1197 (first entry) AAF25128; N 481 781 781 901 961 1081 661 901 961 AAF25128 셤 ò g ò 名 ò g ö 셤 ō. g ò g ð 셤 ò 셤 ö 윱 ò 유 à a ö g 유 윱 ò ö

241 toggatetgetggeaggegeegeetacgeegeeaacatectactgteggggeegeteaeg

teggàtetgetggeaggegecgectacgecgecaacatectactgteggggeegeteaeg

ö g à a ð 셤 ò 셤 ŏ 셤 ò g à g

300

gogtocgtgotgagcctcctggccatcgcgctggagcgcagcctcaccatggcgcagg

361

421

540 540

541

601

661

à

셤

541

ttogtigggcatcctggccgctatctgtgcactctacgcgcgcatctactgccaggtacgc

gocaacgogogoctgocggcacggcccgggactgcggggacccacctcgacccgggcg

9 9 999 999

```
The present sequence encodes a human G-coupled protein receptor, designated AXOR29 polypeptides and polynucleotides are useful for treating and diagnosing infections and with as bacterial, fungal, protozoan and viral infections, particularly infections caused by HIV-1 or HIV-2, pain, cancers, diabetes, obesity, anorexia, bulimia, asthma, Parkinson's diseases, acute heart failure, hypotension, hypertension, urinary retention, osteoporosis, angina pectoris, myocardial infarction, stroke, ulcers, allergies, benign prostatic hypertrophy, migraine, vomiting, psychotic and neurological disporders including anxiety, schizophrenia, maint depression, depression, delinium, dementia and severe mental retardation. The polypeptide is also useful
Parkinson's disease, acute heart failure; hypertension; angina pectoris; urinary retention; osteoporosis; myocardial infarction; stroke; ulcer; allergy; benign prostatic hypertrophy, migraine; vomiting; schizophrenia; psychotic disorder; neurological disorder; anxiety; manic depression; depression; delixium; dementia; mental retardation; vaccine; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Novel G-coupled protein receptor, AXOR29 useful for treating diseases such as microbial infections, cancers, obesity, asthma, diabetes, dispension, osteoporosis, myocardial infarction and neurological disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sarau HM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         for inducing immunological response in a mammal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 1197 BP; 139 A; 449 C; 389 G; 220 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Michalovich
1 P, Lane P;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Lane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Foley JJ, Mich
L, Agarwal P,
                                                                                                                                                                Location/Qualiflers
1..1197
/*tag= a
                                                                                                                                                                                                                            /product- "AXOR29"
                                                                                                                                                                                                                                                                                                                                                                                                                                                   (SMIK ) SMITHKLINE BEECHAM CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        41pp; English.
                                                                                                                                                                                                                                                                                                                                                                                       99GB-0016417.
99US-0169573.
                                                                                                                                                                                                                                                                                                                                                  2000WO-US19001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Elshourbagy N,
Tsui P, Vawter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2001-147176/15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                P-PSDB; AAB31665
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 4; Fig 1;
                                                                                                                                                                                                                                                                 WO200104139-A2
                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                         13-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                            08-DEC-1999;
                                                                                                                                                                                                                                                                                                          18-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ames RS,
Smith R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ø
```

```
agoggitoggagogotoatogococagogogacggotggacaccagoggotocacaggo 1140
                                                                                cgtcgcaagccgcgctcgctggcttgctgcgcacgctcagcgtggtgctcctggccttt.780
                                                    cgtcgcaagccgctcgctggccttgctgcgcacgctcagcgtggtgctcctggccttt
                                                                                                                          ctgaacccatcatctacacgctcaccaaccgcactgcgccacgcgctcctgcgcctg
                                                                                                                                                                                                             geggetgaggetteegggggeetgeeegetgeetgeecegggeettgatgggagette
                                                                                                                                                                                                                                                                gtggcatgttggggcccctcttcctgctgttgctcgacgtggcgtgcccggcgcg
                                                                                                                                             ctgaaccccatcatctacacgctcaccaaccgcgacctgcgccacgcgctcctgcgcctg
                                                                                                                                                                                                                                                                                                                                                                                                                06-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                     AAF87722
                                                                                                                                                                                                                                                                                                                                                                                            AAF87722;
                                                                                                                                              901
                                                                                                                                                                                                                              1021
                                                                                                                                                                                                                                                     1081
                    721
                                        781
                                                            781
                                                                                                                                                                                                            1021
721
                                                                                                                                                                  961
                                                                                                                         901
                                                                                                                                                                                                                                                                                                                                                          AAF87722
                    셤
                                                           셤
à
                                       ò
                                                                                                   g
                                                                                                                                             g
                                                                                                                                                                                     8
                                                                                 à
                                                                                                                         à
                                                                                                                                                                  ð
                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                         쉽
                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                        BXXXE
                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                    61 tacaccygcaagctccgcggtgcgcgctaccagccgggtgccggcctgcggccgacgcc 120
                                                                                                                                                                                                                                                                                                                                              240
                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                           1 atggagtcggggctgctgcggccggcggcggtgagcgaggtcatcgtcctgcattacaac 60
                                                                                                                                                                                                                                                                       61 tacaccggcaagctccgcggtgcgcgctaccagccgggtgccggcctgcgccgacgcc
                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 1197; DB 22; Length 1197; 100.0%; Pred. No. 2.2e-216; 1.1ve 0; Mismatches 0; Indels 0;
                                                                                                                                                                                                                Query Match
Best Local Similarity 100.1
Matches 1197; Conservative
```

121

g

8

ò g ò 181 181

ð

```
Human; PFI-006; G-protein coupled receptor; GPCR; chromosome 19; anorectic; antidiabetic; neuroprotective; neuroleptic; nootropic; psychotropic; antiinflammatory; cytostatic; vulnerary; dermatological; osteopathic; cardiovascular; antiallergic; gene therapy; diabetes; G-protein coupled receptor modulator; signal transduction; obesity; metabolic disease; neurological disease; psychotherapeutic; inflammation; urgenital disease; reproduction; sexual medicine; cancer; tissue repair; dermatology; skin plymentation; photoaging; frailty; osteoporosis; cardiovascular disease; gastrointestinal disease; antiinfection; allergy; respiratory disease; sensory organ disorder; sleep disorder; hair loss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                      New human G-protein coupled receptor polynucleotide and polypeptide, useful in drug screening, as well as for diagnosing or treating diseases associated with signal transduction, e.g. obesity,
                                                                                                                                                                                      encoding nucleotide sequence SEQ ID NO:1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Inflammation, tissue repair or cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 1; Page 36; 46pp; English.
                                                                                                                                                                                                                                                                                                                                    99GB-0023890.
                                                                                                                                                                                                                                                                                                            2000EP-0308853
                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2001-302043/32.
P-PSDB; AAB74956.
                                                                                                                                                                                                                                                                                                                                                          (PFIZ ) PFIZER LTD (PFIZ ) PFIZER INC.
                                                                                                                                                                                                                                                                                                                                   08-OCT-1999;
                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                           06-OCT-2000;
                                                                                                                                                                                                                                                              EP1090925-A1
                                                                                                                                                                                                                                                                                    11-APR-2001:
                                                                                                                                                                                                                                                                                                                                                                                               Harland L;
```

The present sequence encodes human PFI-006 which is a putative G-protein coupled receptor (GPCR). PFI-006 was identified from chromosome 19.

PFI-006 has anorectic, antidiabetic, neuroprotective, neuroleptic, notropic, psychotropic, antidiaflammatory, cytostatic, vulnerary, correctic, antidiaflammatory, cytostatic, vulnerary, dermatological, osteopathic, cardiovascular and antiallargic activities. It can be used in pharmaceuticals or in the manufacture of medicaments for the treatment of a patient having need to modulate, i.e. agonise or selectively) antagonise PFI-006 protein. A compound which modulates or PFI-006 can be used in diagnosing and treating a variety of diseases. These are also used in diagnosing and treating a variety of diseases. These are also useful for evaluating and/or screening gents that can modulate the GPCR. In particular, they are useful for screening drug candidates for treating diseases associated with signal transduction, including obesity, dispetes and metabolic disease, neurological disease, including obesity, dispetes and metabolic disease, neurological disease. psychotherapeutics, urogenital disease, reproduction and sexual medicine, inflammation, cancer, tissue repair, dermatology, skin plymentation, photoaging, frailty, osteoporosis, cardiovascular disease, gastrointestinal disease, antlinfection, allergy and respiratory disease, sensory organ disorders, sleep disorders or hair loss

Sequence 1198 BP; 139 A; 449 C; 389 G; 221 T; 0 other;

ö 1 atggagtcggggctgctgcggcggcggcggtgagcgaggtcatcgtcctgcattacaac 60 Ouery Match 99.8%; Score 1195; DB 22; Length 1198; Best Local Similarity 100.0%; Pred. No. 5.3e-216; Matches 1195; Conservative 0; Mismatches 0; Indels 0;

gtotgotgoggacgccactcctgcggcagagacccgagtggctcccagcagtcggcgagc 1020 gtctgctgcggacgccactcctgcggcagagacccgagtggctcccagcagtcggcgagc 1020 agoggeteggagegeteategeeecagegegagaggetggacaccageggetecacagge 1140 180 180 240 300 300 360 540 120 360 420 420 480 480 540 900 9 9 999 720 gccaacgcgcggcgcctgccggcacggcccgggactgcggggaccacctcgaccgggcg 720 780 840 900 900 960 960 241 toggatetgetggeaggegeegeetacgeegeeaacatectactgteggggeegeteaeg toggatctgctggcaggcgccgcctacgccgacatcctactgtcggggccgctcacg giggtgtgcctggcggtgtgcgccttcatcgtgctagagaatctagccgtgttgttggtg 9ccaacgcgcggcgcctgccggcacggcccgggactgcgggaccacctcgacccgggcg cgtcgcaagccgcgctcgctggccttgctgcgcacgctcagcgtggtgctcctggccttt ctgaaccccatcatctacacgctcaccgagcggacctgcgccacgcgctcctgcgcctg 121 121 181 181 301 361 481 61 241 301 361 541 601 199 601 1081 481 661 721 721 901 901 961 196 ò 셤 g 셤 셤 ð à à ò ò g ð 셤 à g ò 셤 ò d ò g ò ö g g g 셤 ò å 윱 ö 셤 à

ö

```
The present sequence encodes a polypeptide which is a G-protein coupled receptor (GPCR) related to the EDG (undefined) receptor family, and is designated the 14274 receptor. The receptor polypeptides are useful for producing antibodies specific for the GPCR 14274 receptor protein, and in drug screening assays, in cell-based or cell-free systems. The receptor activity, that is compounds which stimulate or inhibit interaction between the receptor protein and a target molecule. Modulators of receptor protein activity are used to treat subjects with a disorder mediated by the GPCR 14274 receptor pathway, such as, a disorder mediated by the GPCR 14274 receptor protein activity are used to treat subjects with a disorders of the spleen (such as splennemgraly), lung disorders (such as arenoals, enterocolitis), disorders of the liver (such as a remails, stenoals, enterocolitis), disorders of the liver (such as carebral edema, cholestasis), disorders of the brain (such as cerebral edema, cerebrovascular disease, Alzhelmen's disease, Parkinson's disease), disorders involving T-cells (such as autoimmune diseases, transplant
                                                                                                                                                                                                                                                                                                           G-protein coupled receptor; EDG receptor; 14274 receptor; splend disorder; splenomegaly; lung disorder; emphysema; chronic bronchitis; colon disorder; arresia; stenosis; enterocolitis; liver disorder; jaundice; cholestasis; brain disorder; cerebral edema; cerebrowascular disease; Alzheimer's disease; Parkinson's disease; recell disorder; autoimmune disease; transplant rejection; skin disease; vitiligo; lentigo; malignant melanoma; heart disorder; breast disorder; ischemic hart disease; kindey disorder; cystic disease; disorder; mastitis; mammary duct ectasia; prostate disorder; benign enlargement;
1081 agcggctcggagcgctcatcgccccagcgacgggctggacaccagcggctccacaggc 1140
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New G-protein coupled receptor used in receptor assays as a target for diagnosis and treatment of receptor-mediated disorders of the spleen, lung, brain, heart and liver
                                  Location/Qualifiers
152..1348
/*tag= .a
/product= "14274 receptor"
                                                                                                                                                                                                                                                                            DNA encoding a 14274 receptor protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hunter
                                                                                                                                                                      BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      3; F1g 1; (102pp) English.
                                                                                                                                                                AAZ61489 standard; DNA; 1980
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (MILL-) MILLENNIUM PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98US-0136726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-US18976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Glucksmann MA, Weich NS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2000-224699/19.
P-PSDB; AAY69384.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200011166-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                          19-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             19-AUG-1998;
19-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   02-MAR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     tumour; ss.
                                                                                                                                                                                                     AAZ61489;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim
                                                                                                                                                 AAZ61489
                                                                                                                               RESULT
                                                                                                                                                                윱
                                      ò
                                                                   셤
```

```
rejection), skin diseases (such as vitiligo, lentigo, malignant melanoma), heart disorders (such as ischemic heart disease), kidney disorders (such as cystic diseases), disorders of the breast (such as inflammations, mastitis, mammary duct ectasia), and prostate disorders (such as inflammations, benign enlargement, tumours).
                                                                                                                                 120
                                                                                                                                                                180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       211
                                                                                                                                                 271
                                                                                                                                                                               331
                                                                                                                                                                                               240
                                                                                                                                                                                                    420
                                                                                                                                                                                                                                                                                                       571
                                                                                                                                                                                                                                                                                                                       480
                                                                                                                                                                                                                                                                                                                                    631
                                                                                                                                                                                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                                                                                                            909
                                                                                                                                                                                                                                                                                                                                                                                                                99
                                                                                                                                                                                                                                                                                                                                                                                                                               811
                                                                                                                                                                                                                                                                                                                                                                                                                                              720
                                                                                                                                                                                                                                                                                                                                                                                                                                                            871
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          840
                                                                                                                                                                                                                                                                                                                                                                                                  751
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        991
                                                                                      Gaps
                                                                                                    8
                                                                                                            tacaccggcaagctccgcggtgcgcgctaccagccgggtgccggcctgcgccgacgcc
                                                                                                                                                               1 atggagtcggggctgctgcggcggcggtgagcgaggtcatcgtcctgcattacaac
                                                                                                                                         272 giggigigectggcggigigcgccitcatcgigctagagaaictagccgigitgitggtg
                                                                                                                                                                                                                                                                                               ctcggacgccacccgcgcttccacgctcccatgttcctgctcctgggcagcctcacgttg
                                                                                                                                                                                                                                                                                        gcgtccgtgctgagcctcctggccatcgcgctggagcgcagcctcaccatggcgcagg
                                                                                                                                                                                                                                                                                                                                                   gettgetecactgtettgeegetetacgecaaggeetacgtgetettetgegtgetegee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cgtcgcaagccgcgctcgctggccttgctgcgcacgctcagcgtggtgctcctggccttt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cgtcgcaagccgcctcgctggccttgctgcgcacgctcagcgtggtgctcctggccttt
                                                                       21; Length 1980;
                                                                                      .
                                                              Score 1193.8; DB 21; Leus-
Pred. No. 9e-216;
                                              Sequence 1980 BP; 340 A; 611 C; 620 G; 392 T; 17 other;
                                                                                    0; Mismatches
                                                                    99.78;
                                                                            Best Local Similarity 99.8
Matches 1195; Conservative
                                                                     Query Match
                                                                                                                                 61
                                                                                                                                                               121
                                                                                                                                                                                             181
                                                                                                                                                                                                            332
                                                                                                                                                                                                                            241
                                                                                                                                                                                                                                          392
                                                                                                                                                                                                                                                                        452
                                                                                                                                                                                                                                                                                                      512
                                                                                                                                                                                                                                                                                                                                    572
                                                                                                                                                                                                                                                                                                                                                                   632
                                                                                                                                                                                                                                                                                                                                                                                 541
                                                                                                                                                                                                                                                                                                                                                                                                692
                                                                                                                                                                                                                                                                                                                                                                                                                              752
                                                                                                                                                                                                                                                                                                                                                                                                                                                            812
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       932
                                                                                                                                                                                                                                                         301
                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                   481
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          721
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         872
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         781
                                                                                                                                                                                                                                                                                       361
                                                                                                                                                                                                                                                                                                                                                                                                                601
                                                                                                                                                                                                                                                                                                                                                                                                                                             661
 8888888
                                                                                                  ò
                                                                                                                g
                                                                                                                                 ò
                                                                                                                                              g
                                                                                                                                                               ò
                                                                                                                                                                             a
                                                                                                                                                                                            ò
                                                                                                                                                                                                          g
                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                       qq
                                                                                                                                                                                                                                                                                                     q
                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                 8
                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                                                                  ò
                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                          d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
```

```
9tgtegetgetectegggetectgecagegetgggetggaattgectgggtegeetggae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gtytogotgotcotcgggctcctgccagcgctgggctggaattgcctgggtcgcctggac
                    Chen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         427
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     607
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               421
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        727
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     787
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  541
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              847
      유
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                         G protein-coupled receptor; GPCR; hCHN6; drug screening; receptor; expressed sequence tag; EST; signal cascade; ss.
                                                                                                                                                                            1020
                                                                                                                   ctgaaccccatcatctacacgctcaccaaccgcgacctgcgccacgcgctcctgcgcctg 1111
                                                                           ctgaacccatcatctacacgctcaccaaccgcgacctgcgccacgcgctcctgcgcctg 960
                                                                                                                                                                                                                               gtetgetgeggaegecacteetgeggeagagecegagtggeteeceageagteggegage
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               protein-coupled receptor"
                                                                                                                                                                                                                                                                                                                                                                                                                              Human orphan G protein-coupled receptor hCHN6 cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Location/Qualifiers
1.1503
A'tag a //rag a //product " hCHN6"
/note " Human orphan G pr
                                                                                                                                                                                                                                                                                                                                      AAD01132 standard; cDNA; 1503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   990S-0136437.
990S-0136439.
990S-0136567.
990S-0137127.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       990S-0156633.
990S-0156634.
990S-0156653.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99US-0157280.
99US-0157281.
99US-0157282.
99US-0157293.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99US-0157294.
99US-0416760.
99US-0417044.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99US-0120416
99US-0121852
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99US-0137131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99US-0141448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      99US-0136436
                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            99US-01
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO200031258-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human; orphan
transmembrane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (AREN-) ARENA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        sapiens
                                                                                                                                                                                                                                                                                                                                                                                                02-NOV-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                13-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28-MAY-1999;
28-MAY-1999;
28-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-0CT-1999;
12-0CT-1999;
12-0CT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    02-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16-FEB-1999
26-FEB-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      28-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      12-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                88-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                8-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -JUN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -OCT-1999
                                                                                                                                                                                                                                                                                                                                                                   AAD01132;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -0c1-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -001-1
                                                                                                                                                                                                                                                                                                          S
                            1052
                                                                                                                                           1172
                                                                                                                                                                                                      1232
                                                                                      1112
                                                                                                                  1021
                                                                                                                                                                            1081
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo
                                                        961
901
                                                                                                                                                                                                                                                                                                         AAD01132
AAD01132
AAD01132
AAD0
XX
AAD0
XX
AAD0
XX
AAD0
DT
O2-N
XX
HUMB
XX
HUMB
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOMO
XX
HOM
ö
                         셤
                                                  ò
                                                                           G
                                                                                                                ö
                                                                                                                                      a
                                                                                                                                                                       à
                                                                                                                                                                                                쉱
                                                                                                                                                                                                                            ä
                                                                                                                                                                                                                                                        셤
```

```
The present sequence is a CDNA encoding hCHN6, an endogenous human corphan G protein-coupled receptor (GPCR). The hCHN6 CDNA was identified using ESTS (expressed sequence tag) AA804531 and 2134670 as a probe.

The orphan GPCR of the invention, like all GPCRs has seven transmembrane atpha helices with an extracellular Neterminus and an intracellular cappa proteins of the invention. The orphan GPCRs may be used in the the proteins of their endogenous ligands, and to screen potential GPCR agonists and antagonists for use as pharmaceutical agents. The proteins of their endogenous ligands, and to screen potential GPCR agonists and antagonists for use as pharmaceutical agents. The proteins to elucidate their precise role in normal and diseased human conditions. Nucleic acid encoding human orphan GPCRs may be used for tissue localisation expression analysis to provide information about their transitive their contrion in healthy and pathological states.
                                                                                                           Novel human orphan G protein-coupled receptors and the encoding cDNAs for use in the identification of G protein-coupled receptor agonists
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       307 atggagtcggggctgctgcggccggcggtgagcgaggtcatcgtcctgcattacaac 366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 546
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     726
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 atggagtcggggctgctgcggccggccggtgagcgaggtcatcgtcctgcattacaac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ctoggacgccaccogogcttccacgctcccatgttcctgctcctggcagcctcacgttg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ctcggacgccacccgcgcttccacgctcccatgttcctgctcctgggcagcctcacgttg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gcgtccgtgctgagcctcctggccatcgcgctggagcgcagcctcaccatggcgcgcagg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gcgtccgtgctgagcctcctggccatcgcgctggagcgcagcctcaccatggcgcgcagg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21; Length 1503;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 1192.2; DB 21; Lengt
Pred. No. 1.8e-215;
0; Mismatches 3; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 1503 BP; 176 A; 562 C; 511 G; 254 T; 0 other;
                                                                                                                                                                                  Claim 57; Page 78-79; 102pp; English.
  Lin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 99.7%;
Matches 1194; Conservative
Ç₩,
Liaw
                                          2000-400068/34
Dang HT,
                                                                 P-PSDB; AAY71305
~`
```

ö

786 540 846 906

Thu Jan 17

900

960

```
1141 agccccggtgcacccacagccgcccggactctggtatcagaaccggctgcagactga 1197
                                                                                                                                                                                                                             841 acctgtcctgtactcctgcaggccgatcccttcctgggactggccatggccaactcactt
                                                                                                                        ctgaaccccatcatctacacgctcaccaaccgcgacctgcgccacgcgctcctgcgcctg
                                                                                                                                                                                                                                                                                                  Human G protein coupled receptor hCHN6 encoding cDNA SEQ ID NO:31
                                                                                                                                                                                                                                                                                                             Human; G. protein coupled receptor; GPCR; transmembrane receptor;
identification; agonist; screening; therapeutic; pharmaceutical;
                                                                                                                                                                                                                                                               85
                                                                                                                                                                                                                                                              AAA46033 standard; cDNA; 1503
                                                                                                                                                                                                                                                                                                                                                                                   98US-0170496.
98US-0108029.
98US-0109213.
99US-0110060.
99US-0121852.
99US-0123944.
99US-0123945.
                                                                                                                                                                                                                                                                                                                                                                        99WO-US24065
                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                WO200022131-A2
                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                      22-AUG-2000
                                                                                                                                                                                                                                                                                                                                                                       13-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                            12-MAR-1999;
12-MAR-1999;
12-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                         12-NOV-1998;
20-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                   13-OCT-1998
                                                                                                                                                                                                                                                                                                                         mutant; ss.
                                                                                                                                                                                                                                                                                                                                                            20-APR-2000
                                                                                                                                                                                                                                                                                                                                                                                                      27-NOV-1998
                                                                                                                                                                                                                                                                                                                                                                                                           16-FEB-1999
                                                                                                                                                                                                                                                                                                                                                                                                                 26-FEB-1999
                                                                                                                                                                                                                                                                                                                                                                                                                        12-MAR-1999
                                                                                                                                                                                                                                                                          AAA46033;
                                   196
                                                                                                                                   1207
                                                                                                                                                          1267
                                                                                                                                                                                 1327
                                                                                                                                                                                              1081
601
                        199
                                                                                                                      901
                                                                                                                                                                      1021
                                                                                                                                               961
                                                                                                                                                                                                          1387
                                                                                                                                                                                                                                                  8
                      ò
                                용
                                               ö
                                                        g
                                                                       ò
                                                                               Q
                                                                                             ò
                                                                                                        요
                                                                                                                      ò
                                                                                                                                셤
                                                                                                                                                         a
                                                                                                                                                                                 a
                                                                                                                                              ò
                                                                                                                                                                                                         셤
                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                a
                                                                                                                                                                     à
                                                                                                                                                                                              ò
```

```
used in
                                                                                                                                                                                                                                                                                                                                        the present
                                                                                                                                                                                                                                                                                                           The present invention describes transmembrane receptors, preferably human G protein coupled receptors (GPCR), for which the endogenous ligand is unknown (orphan GPCR receptors). More specifically the present invention relates to non-endogenous, constitutively activated versions of a human GPCR. These non-endogenous human GPCRs can be useful for the direct identification of candidate compounds as receptors agonists, inverse agonists or partial agonists for use as pharmaceutical agents. AAA46017 to AAA46126 and AAB02825 to AAB02859 represent sequences used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                486
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      909
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      9
                                                                                                                                                                                                                                                          Non-endogenous, human G protein-coupled receptors for screening receptor, inverse or partial agonists useful as therapeutic agents
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     atggagtcggggctgctgcggccggcggtgagcgaggtcatcgtcctgcattacaac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           atggaqtcggggctgctgcggccggcggcgacgacgacgtcatcgtcctgcattacaac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gtggtgtgcctggcggtgtgcgccttcatcgtgctagagaatctagccgtgttgttggtg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gcgtccytgctgagcctcctggccatcgegctggagcgcagcctcaccatggcgcggg
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 1192.2; DB 21; Length 1503;
Pred. No. 1.8e-215;
0; Mismatches 3; Indels 0;
                                                                                                                                                                                            H.
                                                                                                                                                                                            Dang
                                                                                                                                                                                           à
                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 1503 BP; 176 A; 562 C; 511 G; 254 T; 0 other;
                                                                                                                                                                                           Chen
                                                                                                                                                                                       Lehmann-Bruinsma K, Chalmers DT,
law CW, Lin I, Lowitz K, White C;
                                                                                                                                                                                                                                                                                                                                                                                                      the exemplification of the present invention
                                                                                                                                                                                                                                                                                          Example 1; Page 108-109; 187pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 99.6%;
Best Local Similarity 99.7%;
Matches 1194; Conservative 0
                                                                                      99US-0141448.
99US-0151114.
99US-0152524.
                                                     990S-0137127.
99US-0137131.
99US-0137567.
                        99US-0136436
                                            99us-0136439
                                                                                                                         99US-0156633
                                                                                                                                              99US-0156634
                                                                                                                                                                                                   Liaw CW, Lin I,
                                                                                                                                                                   (AREN-) ARENA PHARM INC
                                                                                                                                                                                                                       WPI; 2000-317986/27.
P-PSDB; AAB02839.
12-MAR 1999;
12-WAR 1999;
28-WAY 1999;
28-MAY 1999;
28-MAY 1999;
28-MAY 1999;
26-MAY 1999;
20-JUN 1999;
27-AUG 1999;
                                                                                                                       29-SEP-1999;
29-SEP-1999;
29-SEP-1999;
                                                                                                              03-SEP-1999
                                                                                                                                                                                        Behan DP,
                                                                                                                                                                                                    Gore M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ~
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          307
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      367
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    547
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               507
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           299
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                241
  à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           요
```

ö

œ

WO200105829-A1

```
/*tag= a /*tag= a /*tag= a Protein-coupled receptor (GPCR), B1C3"
                                                                                                                                                                   840
                                                                                                                                                                                                                        . 096
                                                                                                                                                                                                                                      1266
                                                                                                                                                                                                                                                    1020
                                                                                                                                                                                                                                                         gcggctgaggcttccgggggcctgcgccgctgccccgggccttgatgggagcttc 1080
                                                                                                                                                                                                                                                                                    agoggeteggagegeteategeeecagegegegegegtggaeaecageggeteeaeage 1140
                                                                                                                                                                                                                                                                                                                      agoggeteggagegeteategeeceagegegaegggetggaeaceageggetecacagge 1446
                             540
                                  900
                                                                                  999
                                                                                               996
  480
             786
                                                             999cccgcgcccgtctccagtcgggggcgcacgctggcgatggcagccgcggctggggc
             727 gggcccgcgcccgtctccagtcgggggcgcacgctggcgatggcagccgcgggcctggggc
                                                                                                                                                                                                                       gtggcatgttgggggcccctttcctgctgctgttgctcgacgtggcgtgccgggcgcg
                                                                                                                                                                                                                                                   gtetgetgeggaegeeacteetgeggeagaeceegagtggeteeeageagteggegage
                                                                                                                                                                                                                                                                                                                                                                                                                                        GPCR; BlC3; intracellular signal;
                           gtgtcgctgctcctcggggctcctgccagcgctgggctggaattgcctgggtcgcctggac
                                                       gottgetecactgtettgeegetetacgeeaaggeetacgtgetettetgegtgetegee
                                                                                                                                                                                                                                                                                                                                                                                                                           Rat G protein-coupled receptor (GPCR), B1C3 cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                 SS
                                                                                                                                                                                                                                                                                                                                                                                                                                       protein-coupled receptor; GPCR; B
sic; anaesthetic; drug screening;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                   BP
                                                                                                                                                                                                                                                                                                                                                                                   AAD02561 standard; cDNA; 1203
                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                             02-MAY-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                               analgesic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             gb.
                                                                                                                                                                                                                                                                                                                                                                                                AAD02561;
                                                                                                                                                                                                                                                                                                                                                                                                                                        Rat; G
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Rattus
                                                                                                                                                   1027
                                                                                                                                                                              1087
                                                                                                                                                                                                         1147
                                                                                                                                                                                                                                                               1267
                                                                                                                                                                                                                                                                            1021
                                                                                                                                                                                                                                                                                          1327
                                                                                                                                                                                                                                                                                                        1081
                                                                                                                                                                                                                                                                                                                     1387
                                                                                                                                                                                                                                                                                                                                   1141
                                                                                                                                                                                                                                                                                                                                                1447
                                        787
                                                      541
                                                                  847
                                                                                601
                                                                                              907
                                                                                                                         967
                                                                                                                                      721
                                                                                                                                                                 781
                                                                                                                                                                                                                                     1207
                           481
                                                                                                           661
                                                                                                                                                                                            841
                                                                                                                                                                                                                       901
                                                                                                                                                                                                                                                   961
                                                                                                                                                                                                                                                                                                                                                                     Key
ò
           셤
                         ò
                                      셤
                                                    ð
                                                                g
                                                                               ò
                                                                                            엄
                                                                                                                      요
                                                                                                                                                셤
                                                                                                                                                              Ş
                                                                                                                                                                            셤
                                                                                                                                                                                                        유
                                                                                                        õ
                                                                                                                                    à
                                                                                                                                                                                            ö
                                                                                                                                                                                                                   .8
                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                     õ
                                                                                                                                                                                                                                                                                                                   셤
                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                             셤
```

```
180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ttgcgcctgtcgcctgcgctctggtttgcgcgcgaagggggtgtcttcgtggcgctcgca 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              9
                                                                                                                                                                                                                                                              The present sequence is rat G protein-coupled receptor (GPCR), BIC3 CDNA which is expressed in the central nervous system of rats. BIC3 nucleic acids and recombinant proteins are useful in assays to identify agents capable of binding to the receptor, which modulate intracellular signalling such as adenyl cyclase activity or intracellular calcium concentration. These agents have potential therapeutic applications as either analgesics or anaesthetics. BIC3 receptors are also useful for screening drug candidates using cell signalling assays. Antibodies to BIC3 are useful in purification of intact receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       atggagtcggggctgctgcggccggcggcggtgagcgaggtcatcgtcctgcattacaac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 atggagtecgggetactgeggecagegeeggtgagegaggteategtectteactacaae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       tacaccggcaagctccgcggtgcgcgctaccagccgggtgccggcctgcgccgacgcc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   giggtgcctggcggtgtgcgccttcatcgtgctagagaatctagccgtgttgttggtg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gggcccgcccgtctccagtcgggggcgcacgctggcgatggcagccgcgggcctggggc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gcgtccgtgctgagcctcctggccatcgcgctggagcgcagcctcaccatggcgcgcagg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gegteggtgetgageetectggeeattgetetagagegeeacettaceatggeeegtegt
                                                                                                                                                                            were a protein-coupled receptor, BIC3, expressed in the central system of rats, for screening modulators of the receptor and identifying agents of therapeutic use capable of binding to the receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                'n
                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 1203;
                                                                                                                        ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                        Walker
                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 1203 BP; 152 A; 426 C; 365 G; 260 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 774; DB 22; I
Pred. No. 5.5e-137;
0; Mismatches 235;
                                                                                                                        Σ
                                                                                                                        Pelletier
                                                                                                                       à
                                                                                                                      O'donnell
                                                                                                                                                                                                                                           English
                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity 79.6%;
Matches 954; Conservative
                                               20-JUL-2000; 2000WO-SE01505
                                                                      99SE-0002763
                                                                                                                                                                                                                                           Fig 1; 35pp;
                                                                                                æ
                                                                                                                      Hoffert C,
                                                                                                                                            WPI; 2001-159515/16.
P-PSDB; AAY72561.
                                                                                               (ASTR ) ASTRAZENECA
                                                                     21-JUL-1999;
                       25-JAN-2001
                                                                                                                                                                                                                                           Claim 11;
                                                                                                                      Ahmad S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 481
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
```

ŝ

```
ctggtctgctgcggacgccactcctgcggcagaga---cccgagtggctcccagcagtcg 1014
                                                                                                                                                                                                                                                                                                  999agcttcagcggctcggagcgctcatcgcccagcgcgacgggctggacaccagcggc 1131
                                                                                                                                           ttcgtgggcatcctggccgctatctgtgcactctacgcgcgcatctactgccaggtacgc 660
                                                                                          777
                                                                                                                                                                                                         cttctgaaccccatcatctacacgctcaccaaccgcgacctgcgccacgcgctcctgcgc 957
                                                                                                                                                                                                                                                                                                                                tccacaggcagccccggtgcacccacagccgcccggactctggtatcagaaccggctg 1189
                                                                                                                                                                                                                                                                                                                                       ttcctgggcatcctggctgccatctgtgcgctctatgcaaggatttactgtcaggtgcgg
                                                                                  gccaacgcgcgcgcctgccggcacggcccgggac---tgcggggaccacctcgacccgg
                                                                                                                gegegtegeaageegegetegettgettgetgegeacgeteagegtggtgeteetggee
                       gettgetecactgtettgeegetetacgeeaaggeetacgtgetettetgegtgetegee
        481
                                                                                                                              721
                                                                                                                                                                                                                                                                                                                              1132
                                                   601
                                                                   601
                                                                                  661
                                                                                                                718
                                                                                                                                                            781
                                                                                                                                                                                                                                      958
                                                                                                 661
                                                                                                                                                                                                         868
                                                                                                                                                                                                                                                                    1015
                                                                                                                                                                                                                                                                                  1021
                                                                                                                                                                                                                                                                                                 1072
                                                                                                                                                                                                                                                    961
                                 8
                                                  õ
                                                                  음
                                                                                               g
                      ó
                                                                                ö
                                                                                                               ò
                                                                                                                           유
                                                                                                                                           ò
                                                                                                                                                          8
                                                                                                                                                                          ò
                                                                                                                                                                                        셤
                                                                                                                                                                                                        ö
                                                                                                                                                                                                                     셤
                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                   a
                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                          g
```

AAC63385 standard; cDNA; 1149 (first.entry) AAC63385, AAC63385
XX
AC6.
XX
AC6.
XX
XX
DT
OF
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX
MOUST
XX

Mouse EDG1 nucleotide sequence.

Mouse: EDG1; antimicrobial; cytostatic; analgesics; antidiabetic; antiparkinsonian; cardiant; osteopathic; anorectic; antiasthmatic; antimetic; tranquiliser; antiallergic; neuroleptic; antiulcer; antidepressant; infection; cancer; diabetes; eating disorder; asthma: Parkinson's disease; heart failure; hypotension; hypertension; osteoporosis; angina pectoris; stroke; ulcer; allergy; ss; benign prostatic hypertrophy; migraine; vomiting; neurological disorder.

483

544

g ö

517

157 184

à ద

gcgatgycagccgcggcctggggcgtgtcgctcctcggggctcctgccagcgtgggc ctgctgatcagcgcctgctgggtcatctccctcatcctgggggggcctgcccatcatgggc tggaattgcctgggtcgcctggacgcttgctccactgtcttgccgctctacgccaaggcc

Mus musculus

WO200059529-A1

05-APR-2000; 2000WO-US09075.

```
The present sequence encodes mouse EDG1. Agonists and antagonists of mouse EDG1 are useful for treating patients with enhanced or inhibited activity or expression of EDG1. The EDG1 polypeptide is useful for treating abnormal conditions such as infections caused by bacteria, fungl etc., pain, cancer, diabetes, obesity, anorexia, bulimia, asthma, Parkinson's disease, acute heart failure, hypotension, hypertension, uninary retention, osteoporosis, angina pectoris, myocardial infarction, stroke, ulcers, allergies, benign prostatic hypertrophy, migraine and vomiting. It is useful for treating psychotic and neurological disorders including anxiety, schizophrenia, manic depression, delirium, dementia and severe mental retardation and dyskinesias such as Huntington's disease or Gilles dela Tourett's
                                                                                                                                                                                                                                 Murine EDG1 polypeptide useful for treating infections and diseases such as cancer, diabetes, Parkinson's disease, allergies, and neurological disorders such as anxiety schizophrenia, depression
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 11.49 BP; 257 A; 347 C; 255 G; 290 T; 0 other;
                                                                                                                                                                                                                                                                                                                  Claim 2; Page 31; 34pp; English
                                                                                 (SMIK ) SMITHKLINE BEECHAM CORP
                    05-APR-1999; 99US-0127696.
                                                                                                                                                                  WPI; 2000-564960/64.
P-PSDB; AAB28521.
                                                                                                                           Tsui
```

156 216 276 tatttcataggcaacctagccctctcggacctattagcaggcgtggcttacacagctaac 303 396 423 456 gaccatggcattaaactgacttcagtggtgttcattctcatctgctgcttcatcatcta 183 Gaps gagaatctagccgtgttggttggtccggcgccacccgcgcttccacgctccatgttc ggtgccggcctgcgccgacgccgtggtgtgcctggcggtgtgcgccttcatcgtgcta gagaatatatttgtcttgctaactatttggaaaaccaagaagttccaccggcccatgtac ctgctcctgggcagcctcacgttgtcggatctgctggcaggcgccgcctacgccgaac atcotactgtcggggccgctcacgctgaaactgtcccccgcgctctggttcgcacgggag ctgctgttgtctgggggccaccacttacaagctcacacctgcccagtggtttctgcgggaa cgcagcatcaccatggcgcgcaggggcccgcgccgtctccagtcgggggcgcacgctg gaggtcatcgtcctgcattacaactacccggcaagctccgcggtgcgctaccagccg ggaggegtettegtggcacteactgegteegtgetgageeteetggeeategegetggag 21; Length 1149; Score 271.2; DB 21; Length Pred. No. 1.3e-42; 0; Mismatches 393; Indels 22.7%; llarity 57.1%; Conservative Query Match Best Local Similarity Matches 542; Conserv 37 67 97 244 304 364 124 157 337 397 g ö g 셤 셤 ö à à ö 셤 ö g à g

ñ

ä

```
This sequence encodes human EDG-2.
The invention relates to methods of detecting (ant)agonist, inverse agonist or allosteric modulators of the lysophosphatidic acid receptors EDG-1, EDG-2, EDG-4, EDG-5, and PSP-24. The methods are used to identify (ant)agonists and allosteric modulator of the lysophosphatidic acid (LPA) FDG2 receptor, e.g. to treat LPA signalling mediated disease such cellular apoptosis.
                                                                                                                            771
             969
                                                                                                     756
                                                                                                                                                     816
                                                                                                                                                                                                        876
                                                                                                                                                                             831
                                                                                                                                                                                                                                891
                                                                                                                                                                                                                                                        ggactggccatggccaactcacttctgaaccccatcatctacacgctcaccaaccgcgac 936
                                                                                                                                                                                                                                                                                   951
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Identification of (ant)agonists of LPA receptor EDG-2 for, e.g. treating LPA signalling mediated diseases such as cellular apoptosis
                                                  gcgcgcatctactgccaggtacgcgacgcgcgcggggcctgccgggaacggact
                                                                                                                         ----gaacatctccaaggccagtcgcagttctgagaagtctctggccttgctgaagacg
                                                                                                                                                   ctcagcgtggtgctcttggtggcatgttggggcccctttcctgctgctgttg
                                                                                                                                                                    ttagatgtgggctgcaaggcgaagacctgtgacatcctgtacaaagcagagtacttcctg
                                                                                                                                                                                                                                                                    tacgtgetettetgegtgetegeettegtgggeatectggeegetatetgtgeactetae
                                                                         tgcaggatctactccttggtcaggactcgaagccgccggcctgaccttccgcaa-----
                                                                                                  gcggggaccacctcgacccgggcgcqtcgcaagccgcgctcgctggccttgctgcgcacg
                                                                                                                                                                                                     ctcgacgtggcgtgcccggcgcacctgtcctgtactcctgcaggccgatcccttcctg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EDG-1; EDG-2; EDG-3; EDG-4; EDG-5; PSP-24; human; detection; inverse agonist; allosteric modulator; lysophosphatidic acid LPA signalling mediated disease; cellular apoptosis; ss.
                                                                                                                                                                                                                                                                                                                              atgogocogggcottcatcoggatcgtatcttgttgcaaatgccccaacgg 1001
                                                                                                                                                                                                                                                                                                       etgegccaegegctcetgegcetggtctgctgcggacgccactcctgcgg 986
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 1; Page 51-52; 63pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Kiefer M;
                                                                                                                                                                                                                                                                                                                                                                                               BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (LXRB-) LXR BIOTECHNOLOGY INC
                                                                                                                                                                                                                                                                                                                                                                                               DNA; 1149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 97US-0061572.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human EDG-2 coding sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         09-OCT-1998; · 98WO-US21315
                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Goddard JG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 1999-277658/23.
P-PSDB; AAY05489.
                                                                                                                                                                                                                                                                                                                                                                                            AAX36566 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WO9919513-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 10-OCT-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                              07-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 22-APR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Erikson J,
                                                                                                                                                                                                                                                                                                                                                                                                                      AAX36566;
                                                                         999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ношо
                        604
                                                  637
                                                                                                                         717
                                                                                                                                                   757
                                                                                                                                                                                                   817
                                                                                                                                                                                                                             832
                                                                                                                                                                                                                                                                               892
                                                                                                                                                                                                                                                                                                                               952
                                                                                                 697
                                                                                                                                                                                                                                                                                                       937
                                                                                                                                                                                                                                                                                                                                                                    ö
                  g
                                                ò
                                                                      g
                                                                                                 ö
                                                                                                                        셤
                                                                                                                                                   ö
                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                         요
                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                           셤
                                                                                                                                                                                                                                                                                                    ò
```

```
ggtgccggcctgcgcggccgacgccgtgtgtgcctggcggtgtgcgccttcatcgtgcta 156
                                                                                                                     183
                                                                                                                                                                                atcctactgtcggggccgctcacgctgaaactgtccccgggctctggttcgcacgggag 336
                                                                                                                                                                                                                  456
                                                                                                                                                                                                                                                                                  423
                                                                                                                                                                                                                                                                                                            516
                                                                                                                                                                                                                                                                                                                            543
                                                                                                                                                                                                                                                                                                                                            576
                                                                                                                                                                                                                                                                                                                                                            603
                                                                                                                                                                                                                                                                                                                                                                             636
                                                                                                                                                                                                                                                                                                                                                                                              663
                                                                                                                                                                                                                                                                                                                                                                                                                                               756
                                                                                                                                                                                                                                                                                                                                                                                                                                                               771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 876
                                                   Gaps
                                                                                                                                                                                                                                                                                                                                                                                                               gegegeatetactgecaggtacgegecaacgegegegegeetgeeggeacggaet 696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 891
                                                                                                              ctgctcctgggcagcctcacgttgtcggatctgctggcaggcgccgccaac
                                                                  gaggicalcgiccigcaltacaactacaccggcaagciccgcggiggcgctaccagccg
                                                                                                                                     gagaatctagccgtgttgttggtgctcggacgccacccgcgcttccacgctcccatgttc
                                                                                                                                               tggaattgcctgggtcgcctggacgcttgctccactgtcttgccgctctacgccaaggcc
                                                                                                                                                                                                                                                                                                                                                                            taegtgetettetgegtgetegeettegtgggeateetggeegetatetgtgeaetetae
                                                                                                                                                                                                                                                                                                                                                                                                                       ttagatgtgggctgcaaggcgaagacctgtgacatcctgtacaaagcagagtacttcctg
                                                                                                                                                                                                                                                                          cycayceteaceatggcgcgcaggggcccgcccgtetecagtcgggggggcgcacgetg
                                                                                                                                                                                                                                                                                                                                                           tygaactgcatcagctcgctgtctagctgctccaccgtgctcccgctctaccacaggcac
                                                                                                                                                                                                                                                                                                                                                                                             tatattetettetgeaceacegtetteactetgeteetgetteeategecatectetae
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ----gaacatctccaagggcagtcgcagttctgagaagtctctggccttgttgaagacg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ctcagcgtggtgctcctggcctttgtggcatgttgggggccccctcttcctgctgttg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ctcgacgtggcgtgcccggcgcacctgtcctgtactcctgcaggccgatcccttcctg
                                                   15;
                                   Length 1149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 269.6; DB 20; Length
Pred. No. 2.5e-42;
0; Mismatches 394; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ctycycacycyctcctycycttyctctyctycygacyccactcctycyg
         0 other;
         Ë
         290
         3
         C; 257
         345
                                  22.5%;
56.9%;
                               Query Match
Best Local Similarity 56.9
Matches 541; Conservative
         Ä
         257
         BP;
         Sequence 1149
                                                                                  29
                                                                  37
                                                                                                  97
                                                                                                                    124
                                                                                                                                    157
                                                                                                                                                                     217
                                                                                                                                                                                                                       304
                                                                                                                                                                                                                                                                                                                                                           544
                                                                                                                                                                                                      277
                                                                                                                                                                                                                                        337
                                                                                                                                                                                                                                                        364
                                                                                                                                                                                                                                                                        397
                                                                                                                                                                                                                                                                                          424
                                                                                                                                                                                                                                                                                                           457
                                                                                                                                                                                                                                                                                                                           484
                                                                                                                                                                                                                                                                                                                                           517
                                                                                                                                                                                                                                                                                                                                                                            577
                                                                                                                                                                                                                                                                                                                                                                                            604
                                                                                                                                                                                                                                                                                                                                                                                                             637
                                                                                                                                                                                                                                                                                                                                                                                                                            664
                                                                                                                                                                                                                                                                                                                                                                                                                                             697
                                                                                                                                                                                                                                                                                                                                                                                                                                                              717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               817
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               832
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 952
XS
                                                                                                   ö
                                                                                                                셤
                                                                                                                                    ò
                                                                                                                                                  g
                                                                                                                                                                     ò
                                                                                                                                                                                   g
                                                                                                                                                                                                  õ
                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                          셤
                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
```

gagaatatatttgtcttgctaactatttggaaaaccaagaagttccaccggcccatgtac 243

184

윱

g

à

277 atcctactgtcggggccgctcacgctgaaactgtcccccgcgctctggttcgcacggag

ctgctcctgggcagcctcacgttgtcggatctgctggcaggcgccgcctacgccgaccaac

396

423

363

456 483 516

424 cgctacatcaccatgctgaagatgaaactacacaacgggagcaacagctcgcgctccttt

cgcacctcaccatggcgcgcaggggcccgccgcccgtccagtcgggggcgcacgctg

457 gogatggcagccgcggcctggggcgtgtcgctgctcctcgggctcctgccagcgctgggc 484 ctgctgatcagcggcttggggtcatctccctcatcctggggggcctgcccagcatgggc tacgtgetettetgegtgetegeettegtgggeateetggeegetatetgtgeaetetae

544

g

577

à

517

à

tatattetettetgeaceacegtetteaetetgeteetgettteeategecatectetae gogogoatotactgccaggtacgcgccaacgcgcggcgcctgccggcacggcccgggact

604

g

637

ò

셤

tggaattgcctgggtcgcctggacgcttgctccactgtcttgccgctctacgccaaggcc

337

à

g

ò

397

ò 셤 ŏ ద

셤

304 ctgctgttgtctggggccaccacttacaagctcacacctgcccagtggtttctgcgggaa ggaggcgtcttcgtggcactcactgcgtccgtgctgagcctcctggcatcgcgctgga 543 576 603 636 969 716 756 816 831 876 891 936

832 ttagatgtgggctgcaaggcgaagacctgtgacatcctgtacaaagcagagtacttcctg ggactiggccatggccaactcacttctgaaccccatcatctacacgctcaccaaccgcgac

ctcgacgtggcgtgcgcggcgcactgtcctgtactcctgcaggccgatcccttcctg

771

ctcagogtagtgetectggcetttgtggcatgttggggeceetettectgetgetgttg 772 gigateatigicitigagigiciticatigocigotigggocociticiticatociaciacig

tgcaggatctactccttggtcaggactcgaagccgccgcctgaccttccgcaa-----

697

à

717

a

757

ò

ద

817

ò

877

ð

셤

us-09-842-316-1.rng

```
The sequence represents the LPA receptor (LPA), EBG-2. The sequence is analysis of lysophosphatidic acid receptor (LPA), EBG-2. The sequence is given in the specification but no further information is given. LPA is a phospholipid found in variety of plant and animal products. EBG-2 is phospholipid found in variety of plant and animal products. EBG-2 is involved in cell signalling through activation of a MAP kinase cascadedependent reporter. Modulating the activity of a lysophosphatidic acid (LPA) or LPA receptor (EBG-2) involves introducing a composition comprising LPA modulators to the LPA or receptor. The method is useful for treating diseases haracterised by slowed growth or repair of neuronal cells, neurodegenerative diseases, such as Alzheimer's disease, Parkinson's disease, and acute neuron damage, for modulating apoptotic nathwave and treating ischaemic heart disease, tumours, viral diseases
                                                                                                                                                                                  LPA receptor; EDG-2; lysophosphatidic acid; phospholipid; tumour; cell signalling; MAP Kinase; LPA modulator; neurodegenerative disease; Alzheimer's disease; Parkinson's disease; neuron damage; apoptosis; lschaemic heart disease; viral; HIV; inflammatory bowel disease; organ transplant; human; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Modulating activity of a lysophosphatidic acid or its receptor for treating tumours, viral diseases, involves introducing to LPA or its receptor a composition containing diol, epoxide or phosphate compound
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 1149 BP; 257 A; 345 C; 257 G; 290 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   pathways and treating ischaemic heart disease, two bowel disease, and rejection of organ transplants
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Picker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; Page 76-78; 89pp; English
                                                                                                                                                  LPA receptor-related DNA sequence #1.
                                                                                                                                                                                                                                                                                                                                    Location/Qualifiers
1..1152
/*tag= a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Kiefer M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (ATAI-) ATAIRGIN TECHNOLOGIES INC
                                       ВР
                                     Standard; DNA; 1149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2000WO-US22101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99US-0376399
                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Goddard JG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2001-226550/23
                                                                                                                                                                                                                                                                                                                                                                                                           WO200112838-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11-AUG-2000;
                                                                                                                                                                                                                                                                                                  Homo saptens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            18-AUG-1999;
                                                                                                            11-MAY-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Erickson J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                   22-FEB-2001
                                     AAS00257
                                                                       AAS00257;
RESULT 10
```

```
G protein-coupled receptor; nGPCR; seven transmembrane receptor; signal transduction; schizophrenia; thyroid disorder; renal failure; rheumatoid arthritis; CNS disorder; infection; metabolic disease; cardiovascular disease; proliferative disorder; hormonal disorder; attention deficit-hyperactivity disorder/attention deficit disorder; Parkinson's disease; magraine; senile dementia; inflammatory disease;
 951
892 gttctggctgtgctgaactcaggtaccaaccccatcatctacactctgaccaacaaggag
                                                     937 ctgcgccacgcgctcctgcgcctggtctgcggacgccactcctgcgg
                                                                                                                                                                                                                                                      Human nGPCR9 coding sequence #1
                                                                                                                                                        ВР.
                                                                                                                                                    AAH50973 standard; DNA; 270
                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                      28-AUG-2001
                                                                                                                                                                                      AAH50973;
                                                                  952
                                                                                                                                  AAH50973
                                ö
                                                              ద
```

7

15;

Indels

DB 22; Length 1149;

Score 269.6; DB 22; Pred. No. 2.5e-42; 0; Mismatches 394;

Query Match 22.5%; Best Local Similarity 56.9%; Matches 541; Conservative (

37

à

g

96 Gaps

67 gatatcatagtccggcattacaactacacaggcaagttgaacatcg---gggcggagagg 123 99tgccggcctgcgcggccgacgtggtgtgcctggcggtgtgcgccttcatcgtgcta 156 124 gaccatggcattaaactgacttcagtggtgttcattctcatctgctgcttcatcatccta 183 gagaatctagccgtgttggttgctcggacgccacccgcgcttccacgctcccatgttc 216

97

ò

요

157

9aggtcatcgtctgcattacaactacaccggcaagctccgcggtgcgcgctaccagccg

```
Vogeli G, Wood LS, Parodi LA, Hiebsch RR, Lind P, Slightom J;
Schellin Ka, Kaytes PS, Bannigan CM, Ruff V, Sejlitz T, Huff RM;
                                                                                                                                                                                                                                                                                                             New G protein-coupled receptor (nGPCR-x) and its encoding polynucleotide useful for diagnosing and treating e.g. schizophrenia
rheumatoid arthritis; autoimmune disorder; respiratory ailment; neuroprotective; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            disease), rheumatoid arthritis, autoimmune disorders,
                                                                                                                                                                                                                                                                                                                                      Claim 4; Page 77; 261pp; English.
                                                                                                                                                                                                                                           (PHAA ) PHARMACIA & UPJOHN CO
                                                                                                                     990S-0173396
2000US-0184129
2000US-018421
2000US-018554
2000US-0186530
2000US-0186811
2000US-0196114
2000US-0190310
                                                                                                      99US-0166071
99US-0166678
                                                                              2000WO-US31581
                                                                                                                                                                                                2000US-0198568
                                                                                                                                                                                                          2000US-0201190
2000US-0203111
                                                                                                                                                                                                                            20000S-0207094
                                                                                                                                                                                                                                                                                    WPI; 2001-389826/41
P-PSDB; AAG80933.
                                             WO200136473-A2.
                                                                                                                                                                       09-MAR-2000;
17-MAR-2000;
21-MAR-2000;
                                                                                                                      28-DEC-1999;
22-FEB-2000;
28-FEB-2000;
                                                                                                                                                                                                20-APR-2000;
02-MAY-2000;
08-MAY-2000;
                                                                              16-NOV-2000;
                            Homo saptens
                                                                                                                                               28-FEB-2000;
02-MAR-2000;
                                                                                                                                                        02-MAR-2000;
                                                                                                                                                                                                                           25-MAY-2000;
                                                                                                      17-NOV-1999
19-NOV-1999
                                                             25-MAY-2001
```

```
The present invention relates to novel G protein-coupled receptors (nGPCRx; where x is 1, 3, 4, 5, 9, 11, 12, 14-18, 20, 21, 22, 24, 27, 28, 31-38, 40, 41, 53-60) and their coding sequences. The present sequence is the coding sequence such G protein-coupled receptor. GPCRs are also known as seven transmembrane receptors and function in signal transduction. The nGPCRx coding sequences are useful for creening a human to diagnose a disorder affecting the brain or a genetic predisposition, specifically schizophrenia. nGPCRx are useful for C predisposition, specifically schizophrenia. nGPCRx are useful for nGPCRx in a sample is useful as a diagnostic tool for diseases or nGPCRx in a sample is useful as a diagnostic tool for diseases or disorders, infections such as HTV-1, metabolic and cardiovascular diseases, proliferative disorders and hormonal disorders. Modulators of nGPCRx activity have the utility for treating neurological disorders.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   disorder/attention deficit disorder), and neuronal disorders such as Alzhelmer's disease, Parkinson's disease, migraine and senile dementia. Additional disorders include inflammatory conditions (e.g. Crohn's
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 respiratory ailments such as asthma, and inflammatory diseases e.g. inflammatory bowel disease,
```

Sequence 270 BP; 30 A; 101 C; 92 G; 47 T; 0 other;

```
ö
                                      Gaps
                      ô
 Score 268.4; DB 22; Length
Pred. No. 4.1e-42;
0; Mismatches 1; Indels
Query Match 22.4%;
Best Local Similarity 99.6%;
Matches 269; Conservative C
                                      208
                                      ð
                                                        윱
```

DB 22; Length 270;

```
This sequence is a novel rat cDNA which encodes p(rat-edg), a member of the G-protein coupled receptor superfamily of proteins. The amino acid similarity between p(H218) (AAW01663) and p(rat-edg) (AAW01664) suggests that they may be activated by the same endogenous ligand(s). The expression pattern of mRNA transcripts of both genes in cell lines, various rat tissues and developing rat brain suggests that they both play a role in cell proliferation and/or differentiation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            p(H218); G-protein coupled receptor; cell differentiation; proliferation; proline directed kinase; cell division; growth factor response; rat-edg; therapy; diagnosis; ss.
                                                                                                                                                                                                                                                 121 gcacgggagggaggcgtcttcgtggcactcactgcgtccgtgctgagcctcctgggcatc 180
                              61 gccgccaacatcctactgtcggggccgctcacgctgaaactgtcccccgcgctctggttc 120
googcoaacatectactgtcggggccgctcacgctgaaactgtcccccgcgctctggttc 327
                                                                                                                      gcacgggagggaggctctcgtggcactcactgcgtcgtgcttaggcctcctggccatc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /*tag= a
/*tag..1772
/*tag. b
/note= "associated with mRNA degradation"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA encoding rat protein p(H218) - associated with cell proliferation and/or differentiation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cDNA encoding p(rat-edg), G-protein coupled receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                     241 cgcacgctggcgatggcagccgcggcctgg 270
                                                                                                                                                                                                                                                                                                                                                                           448 cgcacgctggcgatggcagccgggcctgg 477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 9; Column 19-24; 33pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualiflers
269..1420
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAT58506 standard; DNA; 2232 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  94US-0196989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               94US-0196989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (MACL/) MACLENNAN A J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 1997-051235/05.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            P-PSDB; AAW01664.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Rattus rattus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Maclennan AJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               01-APR-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15-FEB-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15-FEB-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US5585476-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17-DEC-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          misc_signal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAT58506;
                                                                                                                      328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Key
                                                                                                                                                                             ద
                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                                        엄
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY OF THE PARTY 
                                                      g
                                                                                                                                                                                                                                                                                                                                                                           à
                                                                                                                      à
```

Sequence 2232 BP; 552 A; 614 C; 488 G; 578 T; 0 other;

DB 18; Length 2232;

ONA encoding rat-edg, G-protein coupled receptor superfamily member

(first entry)

12-MAR-1999

; G-grotein coupled receptor superfamily; cell proliferation; differentiation; cancer; rat-edg; diagnosis; therapy; ss.

Location/Qualifiers 269..1420 /*tag= a /product- rat-edg

Rattus sp.

Key

96US-0760936 94US-0196989 96US-0760936

US5856443-A 05-JAN-1999 (MACL/) MACLENNAN A J.

15-FEB-1994; 36-DEC-1996; 06-DEC-1996;

MacLennan AJ;

WPI; 1999-105192/09. P-PSDB; AAW87791.

```
ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           -- Caagaacatctccaaggccagccgcagttccgagaagtctctggccttgctgaagaca 1042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1103 ttagatgtggggtgcaaggcgaagacctgtgacatcctgtacaaagcagagtacttcctg 1162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             277 atcctactgtcggggccgctcacgctgaaactgtcccccgcgctctggttcgcacgggag 336
                                                                                                                                                                                                                                                                                                             396
                                                                                                                                                                                                                                                                                                                                                                 456
                                                                                                                                                                                                                                                                                                                                                                                                                      516
                                                                                           ggtgccggcctgcgcgccgacgccgtggtgtcctggcggtgtgcgccttcatcgtgcta 156
                                                                                                                                               gagaatctagccgtgttgttggtgctcggacgccacccgcgcttccacgctcccatgttc 216
                                                                                                                                                                                                                              574
                                                                                                                                                                                                                                                                                                                                        694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              636
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gcgcgcatctactgccaggtacgcgccaacgcgcggcggcctgccggcacggcccgggact 696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      756
                                                                                                                                                                                                                                                                                                                                                                                         cgctacatcaccatgctgaagatgaaactacacaacggcagcaacagctcgcgctccttt 754
                                                                                                                                                                                                                                                                                                                                                                                                                                               814
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                tggaactgcatcagctgctccagctgctccaccgtgctcccgctctaccacaagcac 874
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ctcgacgtggcgtgcccggcgcacctgtcctgtactcctgcaggccgatcccttcctg 876
                Gaps
                                       gaggtcatcgtcctgcattacaactacaccggcaagctccgcggtgcgctaccagccg 96
                                                                                                                                                                      gagaatatatttgtcttgctaactatttggaaaaccaagaagttccaccggcccatgtac
                                                                                                                                                                                                                                                                      cgcagoctcaccatggcgcagggggcccggcgcccgtctccagtcgggggggacgctg
                                                     217 ctgctcctgggcagcctcacgttgtcggatctgctggcaggcgccgcctacgccgac
                                                                                                                                                                                                                          tatticataggcaacctagcctctcggacctgttagcaggagtggcttacacagctaac
                                                                                                                                                                                                                                                                                                          ggaggcgtcttcgtggcactcactgcgtccgtgctgagcctcctggccatcgcgctggag
                                                                                                                                                                                                                                                                                                                        gcgatggcagccgcggggctggtgtcgctgctcctcggggctcctgccagcgctgggc
                                                                                                                                                                                                                                                                                                                                                                                                                                 tggaattgcctgggtcgcctggacgcttgctccactgtcttgccgctctacgccaaggcc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          tacgigototicigogigotogocitogigggalociggocgciatotgigoaciciac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           909999accacctcgacccgggcgcgtcgcaagccgcgctcgctggccttgctgcgcacg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ctcagcgtggtgctctggcctttgtgggatgttgggggcccctcttcctgctgttg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         tgcaggatctactccttggtgaggactcgaagccgccgcctgaccttccg-----
                15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1223 atgogocoggocttcatcaggatcatatcttgttgcaaatgccccaacgg 1272
 Pred. No. 8.2e-41;
0; Mismatches 399; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                937 ctgcgccacgcgctcctgcgcctggtctgctgcggacgccactcctgcgg
 56.48;
Local Similarity 56.4 ies 536, Conservative
Best Loca
                                                                                                                                                                       455
                                       37
                                                              338
                                                                                                                   395
                                                                                                                                                                                                                           515
                                                                                                                                                                                                                                                                                                                                    635
                                                                                          6
                                                                                                                                            157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   875
                                                                                                                                                                                                                                                                                                          337
                                                                                                                                                                                                                                                                                                                                                             397
                                                                                                                                                                                                                                                                                                                                                                                       695
                                                                                                                                                                                                                                                                                                                                                                                                                 457
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    517
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               815
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              637
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  697
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           985
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      757
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         817
                                                              윱
                                       ô
                                                                                          ç
                                                                                                               윱
                                                                                                                                            ò
                                                                                                                                                                    S
                                                                                                                                                                                               ò
                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                         ő
                                                                                                                                                                                                                                                                                                                                 윱
                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                 ð
                                                                                                                                                                                                                                                                                                                                                                                                                                         g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    임
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
```

New isolated polynucleotide encoding a G-protein coupled receptor used to develop products for use in diagnosis and therapy of conditions involving cell proliferation and differentiation

```
The present sequence encodes a protein designated rat-edg. The rat-edg polypeptide is a member of the G-protein coupled receptor superfamily. The specification also describes a protein designated H218, which is also a member of the G-protein coupled receptor superfamily. H218 is also a member of the G-protein coupled receptor superfamily. H218 is involved in cell proliferation and differentiation, and in disease states such as cancer. The polynucleotides and polypeptides can be used to develop products for diagnosis and therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                336
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gagaatctagccgtgttggttggtgctcggacgccacccgcgcttccacgctcccatgttc 216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ctgctcctgggcagcctcacgttgtcggatctgctggcaggcgccgcctacgccgccaac 276
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        634
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ggaggcgtcttcgtggcactcactgcgtccgtgctgagcctcctggccatcgcgctggag 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   338 gatatcatagtccggcattacaactacacaggcaagctgaacatcg---gagtggagaag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     575 ctgctgttgtctggggccaccacctacaagctcacacctgcccagtggtttctgcgggaa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            gaggtcatcgtcattacaactacaccggcaagctccgcggtgcgcgctaccagccg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ggtgccggcctgcgccgacgccgtggtgtgcctggcggtgtgcgccttcatcgtgcta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     atoctactgtcggggccgctcacgctgaaactgtccccgggctctggttcgcacgggag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  tattteataggeaacetageeeteteggaeetgttageaggagtggettaeaeagetaae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 20; Length 2232;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 2232 BP; 552 A; 614 C; 488 G; 578 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match 21.9%; Score 261.6; DB 20; Best Local Similarity 56.4%; Pred. No. 8.2e-41; Matches 536; Conservative 0; Mismatches 399;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Disclosure; Columns 29-24; 33pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            37
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   157
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              455
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  515
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  337
ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ŏ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ð
```

2232

AAV83936 standard; DNA;

RESULT 1
AAV83936
ID AAV8
XX
AC AAV8

AAV83936

us-09-842-316-1.rng

```
985 ··caagaacatctccaaggccagccgcagttccgagaagtctctggccttgctgaagaca 1042
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        456
                                                                                                                                                                                                                                                               516
                                                                                                                                                                                                                                                                                                                                                                                          tggaattgcctgggtcgcctggacgcttgctccactgtcttgccgctctacgccaaggcc 576
                       635 ggaagtatgtttgtggctctgtctgcctcagtcttcagcctccttgctatcgccattgag 694
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         tacgitecticity of the control type of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control of the control o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               757 ctcagogtggtgctctgggcctttgtggcatgttggggccccctttcctgctgctgttg 816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          817 ctcgacgtggcgtgcccggcgcacctgtcctgtactcctgcaggccgatcccttcctg 876
                                                                                                                                                                             cyctacatcaccatyctyaagatgaactacacaaagggaagcaacaacagctcgcgctccttt 754
                                                                                                                                                                                                                                                                                                                                    814
                                                                                                                                                                                                                                                                                                                                                                                                                                     tatattetettetgeaceacegtetteacectgetectgetteeategteatectetae 934
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 637 gegegeatetactgecaggtacgegecaaegegegegeetgeeggeaeggaet 696
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      935 tgcaggatctactccttggtgaggactcgaagccgccgcctgaccttccg----- 984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                697 geggggaccacetegaccegggegegtegcaagcegegetegetggeettgetgegeacg 756
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ggactggccatggccaactcacttctgaaccccatcatcaccacgctcaccaaccgcgac 936
                                                                                                    cgcagcctcaccatggcgcgcaggggcccgcgcccgtcccagtcgggggcgcacgctg
                                                                                                                                                                                                                                               gcgatggcagccgcgggcctgggggcgtgctcctcgggctcctgccagcgctgggc
                                                                                                                                                                                                                                                                                          ctgcgccacgcgctcctgcgcctgctgcggacgccactcctgcgg 986
                                                                                                397
                                                                                                                                                                      695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      577
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               875
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        937
                           유
                                                                                            ö
                                                                                                                                                              셤
                                                                                                                                                                                                                                       à
                                                                                                                                                                                                                                                                                                         셤
                                                                                                                                                                                                                                                                                                                                                                                          à
                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             8 S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g
```

AA209756 standard; DNA; 1149 BP 18-NOV-1999 (first entry) AAZ09756;

Human EDG-1c receptor DNA.

W EGD-Ic receptor; sphingosine-1-phosphate; S-1-P; human; anti-arrythmic; M dihydro sphingosine-1-phosphate; anti-HIV; anti-asthmatic; cytostatic; anti-mid-arbial; nanti-anginal; analgesic; anti-HIV; anti-asthmatic; cytostatic; anti-HIV; anti-anginal; nootropic; pain; W treatment; infection; bacterial; fungal; protozoan; viral; HIV-1; HIV-2; Cancer; diabetes; obesity; anorexia; bulimia; Parkinson's disease; a string asthma; acute heart failure; hypertension; hypotension; osteoporosis; W urinary retention; angina pectoris; myocardial infarction; stroke; rospestive heart failure; left ventricular hypetrophy; arrhythmia; restenosis; coronary attery angioplasty; vascular sclerosis; allergy; W nound healing; ulcer; benign prostatic hypertrophy; migraine; voniting; psychotic disorder; neurological disorder; anxiety; schizophrenia; w manic depression; depression; delitium; dementia; degenerative disease; kw severe mental retardation; neurodegenerative disease; ischemic stroke; w year mental retardation; neurodegenerative disease; ischemic stroke; w very

WO9946277-A1

Homo sapiens,

```
This invention describes a novel human selective receptor for sphingosine-1-phosphate and dihydro sphingosine-1-phosphate, designated aphingosine-1-phosphate, designated aphingosine-1-phosphate, designated and dihydro sphingosine-1-phosphate, designated and discolar antimicrobial, antimicrobial, antimicrobial, antimicrobial, antimicrobial, antimicrobial, antimicrobial, designated, cytostatic, antimicrobial, antimicrobial, and designated, cytostatic, antimicrobial, antimicrobial, diseases associated with inappropriate EDG-1c activity or levels. EDG-1c diseases associated with inappropriate EDG-1c activity or levels. EDG-1c polypeptides and polynucleotides, agonists, antagonists and antibodies are used to treat diseases, including infections such as bacterial, fungal, protozoan and viral infections, sapecially HIV-1 or HIV-2; pain; ancerts disease; acute heart failure; hypertension; hypotension; urinary consessis, and pectoris; myocardial infarcino; stroke; congestive heart failure; left ventricular hypertrophy; anriphymia's; cestenosis; artherosolerosis; inflammation; angiogenesis; wound healing; ulcers; allergies; benign prostatic hypertrophy; migraine; compestive diseases fibrosis; artherosolerosis; inflammation; angiogenesis; or hearing, psychotic and neurological disorders, including anxiety, conting; psychotic and neurological disorders; including anxiety, conting; psychotic and neurological disorders; including anxiety, conting, psychotic and neurological disorders; including anxiety, conting, psychotic and neurological disorders; including anxiety, conting, manual retardation; degenerative diseases and degenerative diseases and scowere of primers and dyskinesias such as neurodegenerative diseases of dilles dela Tourett's syndrome. The polynucleotide is also useful as a source of primers and probes, and also the method of the invention.
                                                                                                                                                                                                                                                                                                           Livi GP;
                                                                                                                                                                                                                                                                                                                                                                                                                                        Novel selective receptor for aphingosine-1-phosphate designated {\tt EC} used to treat human diseases and disorders, as well as infections
                                                                                                                                                                                                                                                                                                 Chambers JK, Chan W, Johnson RK, Khandoudi N, Stadel JM, Wilson S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 1149 BP; 247 A; 364 C; 262 G; 276 T; 0 other;
                                                                                                                                                                              SMITHKLINE BEECHAM CORP.
SB LAB PHARM.
SMITHKLINE BEECHAM PLC.
STADEL P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 3; Fig 1; 51pp; English.
                                                                    99WO-US04675
                                                                                                              98US-0077369
98US-0087102
                                                                                                                                                                                                                                                                                                                                                                   1999-551357/46.
                                                                                                                                                                                                                                                                                                                                                                 WPI; 1999-551357/
P-PSDB; AAY33205.
                                                                    04-MAR-1999;
                                                                                                                                      28-MAY-1998;
                        16-SEP-1999
                                                                                                                09-MAR-1998
                                                                                                                                                                                                                                                                                                   2
                                                                                                                                                                                                                                                  STAD/)
                                                                                                                                                                                                                                                                                                   Bergsma
                                                                                                                                                                                                      SMIK
```

Length 1149; 21.1%; Score 252; DB 20; Length 11. 55.8%; Pred. No. 5.1e-39; ive 0; Mismatches 405; Indels Best Local Similarity 55.8 Matches 530; Conservative Query Match

37 gaggicalcgicctgcaltacaactacaccggcaagciccgcggtgcgcgctaccagccg 29

ö 셤

ä

Gaps

15;

ggtgccggcctgcggccgacgccgtggtgtgcctggcggtgtgcgccttcatcgtgcta 156 6 124 157 셤 ò ò

gagaatctagccgtgttgttggtgctcggacgccacccgcgcttccacgctcccatgttc 216 184 gayaacatctttgtcttgctgaccatttggaaaaccaagaaattccaccgacccatgtac g

244 à

```
304 ctgctcttgtctggggccaccacctacaagctcactcccgcccagtggtttctgcgggaa 363
                                                                                                                                                                                                                                                                                                                                                   ctggatgtgggctgcaaggtgaagacctgtgacatcctcttcagagcggagtacttcctg 891
                                                                                                                                                                                                                                                                                                                                                                        724 tecaaggecage-----egeagetetgagaagtegetggegetgeteaagaee 771
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ggactggccatggccaactcacttctgaaccccatcatctacacgctcaccaaccgcgac 936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                edg6; human; G-coupled receptor; endothelial differentiation gene; antiinflammatory; immunomodulatory; antimicrobial; antiallergic; cytostatic; gene therapy; inflammation; autoimmune disease; allergy;
atcctactgrcggggccgctcacgctgaaactgtcccccgcgctctggttcgcacgggag
                                                                                                cgcagcctcaccatggcgcgcaggggcccgcgccgtctccagtcgggggggcacgctg
                                                                                                                gcgatggcagccgcggcctgggggggtgtcgcctggggctcctgccagcgctgggc
                                                                                                                                                                      tggaattgcctgggtcgcctggacgcttgctccactgtcttgccgctctacgccaaggcc
                                                                                                                                                                                                                     544 tggaactgcatcagtgcgctgtccagctgctccaccgtgctgccgctctaccacaagcac
                                                                                                                                                                                                                                                tacgigcicitcigcgigcicgccitcgigggcaicciggccgciatciggcaciciac
                                                                                                                                                                                                                                                            ctcagogtggtgctctggcctttgtgggcatgttggggcccctcttcctgctgttg
                                                                                                                                                                                                                                                                                                                                                                                                                         772 gtaattatogtoctgagogtottoatogoctgotggggcacogotottcatoctgotoctg
                                                                                                                                                                                                                                                                                                                                                                                                                                                  ctcgacgtggcgtgcccggcgcgcacctgtactcctgcaggccgatcccttcctg
                                                ggaggcgtcttcgtggcactcactgcgtccgtgctgagcctcctggccatcgcgctggag
                                                                                                                                                                                                                                                                                                   gegegeatetactgecaggtacgegecaacgegegegegectgecggeacggeec
                                                                                                                                                                                                                                                                                                                          tgcagaatctactccttggtcaggactcggagccgcctgacgttccgcaagaacatt
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                937 ctgcgccacgcgctcctgcgcctggtctgctgcggacgccactcctgcgg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          tumor; leukemia; lymphoma; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  29-JUN-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAX82789 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human edg6 DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DE19846979-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  11-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                23-MAR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAX82789
                                                                                                                       424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 877
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         892
                                               337
                                                                                                                                                457
                                                                                                                                                                                                517
                                                                                                                                                                                                                                                577
                                                                                                                                                                                                                                                                                                 637
                                                                                                                                                                                                                                                                                                                          664
                                                                                                                                                                                                                                                                                                                                                                                                                                                  817
                                                                                               397
                                                                                                                                                                                                                                                                                                                                                                                                  757
                                                                 용
                                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ç
                                                                                              ò
                                                                                                                용
                                                                                                                                         ò
                                                                                                                                                                  a
                                                                                                                                                                                               ò
                                                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                 셤
                                                                                                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                      8
                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                        8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ö
```

```
This invention describes novel human and murine G-coupled receptors EDG (endothelial differentiation gene) 6 (I and II). The products of the invention have antilnflammatory, immunomodulatory, antimicrobial, antialized and cytostatic activity. (I) and (II) are involved in signal transduction. (I), (II) and their fragments, variants and mutants or binding patienters, are used therapeutically to modulate the function of blood and look cells, particularly for inhibition of acute and chronic inflammation and to raise specific antibodies against them. They are used as a source of diagnostic oligonucleotides and for gene therapy. Antibodies, against (I) and (II) are useful for diagnosis and optionally when coupled to therapeutic agents, toxins or other antibodies, to modulate immune and inflammatory responses for example immunological defects such as inflammation, infection, autoimmune diseases, allergy, tumors, lenkemia and lymphoma. This sequence encodes the human EDGG protein described in the method of the invention.
                                                                                                                                 New human and murine G-coupled receptor EDG (endothelial differentiation gene) 6, useful for modulating inflammatory and immune reactions and for treatment of allergy or tumors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cogogettecacgeteceatgtteetgeteetgggeageeteacgttgteggatetgetg 252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          atgoggitogogacgetgggtetactattgeetggtgaacateacgetgagtgaeetgete 282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ctgctgcggccggcggtgagcgaggtcatcgtcctgcattacaactacaccggcaag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ctggccgggcggggggccggaggatggcgggcctggggggccctgcgggggctgtcggtg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           goggtatgogcottcatogtgotagagaatotagcogtgttgttggtgotoggacgcoac
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gcaggcgccgcctacgccgacatcctactgtcggggccgctcacgctgaaactgtcc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           geogecagetgetggtgetggagaaettgetggtgetggeggeeateaceageeae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ccgcccagtggttcctacgggagggcctgctctcaccgccctggccgcctccaccttc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ctccgcggtgcgctaccagccggtgccggcctgcgccgacgccgtggtgtgtgcctg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                agectectggceategegetggagegeagecteaceatggegeaggggeeggegeee
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ---gtctccagtcggggggggcacgctggcgatggcagccggggcctggggcgtgtcgctg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20.9%; Score 250.4; DB 21; Length 1155; 55.2%; Pred. No. 1e-38; ative 0; Mismatches 446; Indels 39;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 1155 BP; 139 A; 414 C; 382 G; 220 T; 0 other;
                   MEDIZIN MAX
                                                    Ξ
                                                                                                                                                                                                      Claim 4; Page 7; 12pp; German
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                    Ö
                DELBRUECK CENT
                                                  Bernhardt
                                                                                 WPI; 2000-258069/23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                    P-PSDB; AAW90862
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ouery Match
Best Local Simil
Matches 597; C
                                                  Graeler M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      43
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          223
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      523
d
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       õ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                   456
                                                                                                                                                                                                                                      543
                                                                                                                                                                                                                                                                                                                                         636
                                                                                                                                                                                                                                                                                                                                                                                                            969
                                                                                                                                                                                                                                                                                                                                                                                                                                              723
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 816
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                831
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98DE-1043240.
```

72

162 192 222 402 432 462 489

```
tgcggacgccactcctgcggcagagcccgagtggctcccagcagtcggcgagcgcggct 1026
                                                                                                                                                                                                                               tgcgggtgtctccggctgggcatgcgagggcccggggactgcctggcccgggccgtcgag 1029
                                                                                                                                                                                                                                               gaggettecgggggeetgeegetgeetgeeceegggeettgatgggagetteagegge 1086
                                                                                                                                                                                                                                                       cccatcatctacacgctcaccaaccgcgacctgcgccacgcgctcctgcggcctggtctgc 966
550 actgicityccgcictacgccaaggcctacgigctctictgcgigctcgccticgigggc 609
         610 atcctggccgctatctgtgcactctacgcgcgcatctactgccaggtacgcgaccaacgcg 669
                                       gtactcctgcaggccgatccct---tcctgggactggccatggccaactcacttctgaac 906
                                                                                                                                                              tc 1088
||
tc 1091
                                                                           703
                                                                                                                       790
                                                                                                                                      790
                                                                                                                                                                                                                                              1027
                                                                                                                                                      850
                                                                                                                                                                                                  910
                                                                                                                                                                                                                 967
                                                                                                                                                                                                                               970
                                                                                                                                                                                                                                                                             1087
                                                                                                                                                                                                                                                                                           1090
                                                                                                                                                                                   907
ð
             a
                              ò
                                         a
                                                           õ
                                                                     . Q
                                                                                        à
                                                                                                       a
                                                                                                                                                                    셤
                                                                                                                                                                                                 a
                                                                                                                                                                                                                                                            a
                                                                                                                       ö
                                                                                                                                     g
                                                                                                                                                     ð
                                                                                                                                                                                   ò
                                                                                                                                                                                                                ò
                                                                                                                                                                                                                             셤
                                                                                                                                                                                                                                              ò
```

Search completed: January 16, 2002, 23:38:04 Job time: 4076 sec

```
January 16, 2002, 22:38:38; Search time 73.84 Seconds (without alignments) 399.257 Million cell updates/sec
GenCore version 4.5
Copyright (c) 1993 - 2000 Compugen Ltd.
                                                                                                        OM protein : protein search, using sw model
                                                                                                                                                           Run on:
```

1 MESGLLRPAPVSEVIVLHYN......TGSPGAPTAARTLVSEPAAD 398 522463 segs, 74073290 residues BLOSUM62 Gapop 10.0 , Gapext 0.5 US-09-842-316-2 2019 Title: Perfect score: Scoring table: Sequence: Searched:

Total number of hits satisfying chosen parameters:

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries Minimum DB seq length: 0 Maximum DB seq length: 2000000000

/SIDS2/gcgdata/geneseq/geneseqp/AA1984_DAT: /SIDS2/gcgdata/geneseq/geneseqp/AA1985_DAT: /SIDS2/gcgdata/geneseq/geneseqp/AA1986_DAT: /SIDS2/gcgdata/geneseq/geneseqp/AA1987_DAT: /SIDS2/gcgdata/geneseq/geneseqp/AA1988_DAT: /SIDS2/gcgdata/geneseq/geneseqp/AAz001.DAT./SIDS2/gcgdata/geneseq/geneseqp/AA2001.DAT. /gcgdata/geneseq/geneseqp/AA1980.DAT: /SIDS2/gcgdata/geneseq/geneseqp/AA1999.DAT /gcgdata/geneseg, /gcgdata/geneseg Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

Amino acid sequenc Human PFI-006 prot Amino acid sequenc Human orphan G pro Human G protein co Rat G protein-coup Human EDG-2 protei LPA receptor-relat Mouse EDG1 polypep P(rat-edg), G-prot Human nGPCR9 #2 Description SUMMARIES Query Match Length DB 1714.5 865.5 865.5 863.5 853.5 Score Result ટ્ર

Rat-edg, G-protein	Human EDG-1c recep	G-protein coupled	Anglogenesis prote	욛	Human endothellal	Human EDG-3 prote1	Human EDG3sb polyp	LPA receptor-relat	Murine EDG3 polype	Rat G protein-coup	Fragment of recept	p(H218), G-protein	Human EDG-5 protei	Rat H218, G-prote1	LPA receptor-relat	Human EDG family H	Amino acid sequenc	Predicted polypept	EDG-4 amino acid's		Murine EDG5 polype		Human EDG-7 recept	-	Human edg6 protein	Murine edg6 prote1	Amino acid sequenc	ы	olfactory	Murine lysophospha	Murine LPA recepto		
AAW87791	AAY33205	AAR14337	AAB70503	AAR48752	AAW02724	AAY05490	AAY59176	AAU00303	AAB71751	AAB73483	AAR58712	AAW01663	AAY05492	AAW87790	AAU00305	AAY49904	AAB18889	AAY28288	AAY28289	AAY49905	AAB03966	AAY06412	AAY06411	AAY69500	AAW90862	AAW90863	AAW80955	AAW65451	AAW59501	AAW80990		AAW82659	AAW07619
20	20	12	22	15	11	20	21	22	22	55.	15	18	20	50	22	20	21	20	20	20	21	50	50	21	71	21	19	19	19	50	22	20	18
383	381	381	381	334	334	378	378	378	378	379	352	352	352	352	352	353	353	353	353	353	325	384	384	384	384	386	209	364	364	364	364	351	364
42.3	41.7	ä	ä	æ	38	38	m	38.	37.	36.	n	36.	36.	36.	36.	36.	e	35.	35.	35.	ന	32.	32.	32.	32	30.	~	25.	25.	25.	25.	2	25.
853.5	842	834	834	176	116	774.5	774.5	774.5	750.5	733.5	732.5	732.5	732.5	732.5	732.5	728.5	722	721.5	721.5	720	712.5	647	645.5	645.5	645.5	607.5	548	518.5	518.5	518.5	518.5	508.5	507.5
12	13	14	15	16	17	18	19	20	21	22	23	24	25	56	27	28	50	30	31	32	e e	34	32	36	37	38	30	40	41	42	43	44	45

ALIGNMENTS

AAG80967 standard; Protein; 398 AA. (first entry) 28-AUG-2001 AAG80967 RESULT AAG80967

Human nGPCR9 #2

signal transduction; schizophrenia, thyroid disorder; renal failure; rhemmatoid arthritis; CNS disorder; infection; metabolic disease; cardiovascular disease; proliferative disorder; hormonal disorder; neurological disorder; equipment of disorder; attention deficit-hyperactivity disorder/attention deficit disorder; Parkinson's disease; magraine; senile dementia; inflammatory disease; seven transmembrane receptor; rheumatoid arthritis; autoimmune disorder; respiratory ailment; protein-coupled receptor; neuroprotective

WO200136473-A2. Homo saptens 25-MAY-2001.

16-NOV-2000; 2000WO-US31581. 99US-0165838 99US-0173396 16-NOV-1999

2000US-0185421

28-FEB-2000

```
(SMIK ) SMITHKLINE BEECHAM CORP. (SMIK ) SMITHKLINE BEECHAM PLC.
                                                                                                                                    AAB31655 standard; Protein; 398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 1; Fig 2; 41pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                          99GB-0016417.
                                                                                                                                                                                                                                                                                                                                                                                                                               13-JUL-2000; 2000WO-US19001.
                                                                                                                                                                                         (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2001-147176/15.
N-PSDB; AAF25128.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
Matches 398; Conserv
                                                                                                                                                                                                                                                                                                                                                                            WO200104139-A2
                                                                                                                                                                                                                                                                                                                                                    Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         13-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     08-DEC-1999;
                                                                                                                                                                                       30-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                       18-IAN-2001
                                                                                                                                                              AAB31665;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                 g
                                                                                                                                                                                                                                                                                                                                                                                                                    윱
                                          ö
                                                                                                                                                              (GPCRX; where X is 1, 3, 4, 5, 9, 11, 12, 14-18, 20, 21, 22, 24, 27, 28, 31-38, 40, 41, 53-60) and their coding sequences. The present sequence is one such G protein coupled receptor. GPCRs are also known as sequence is one such G protein coupled receptor. GPCRs are also known as sequence is one such G protein coupled receptor. GPCRs are also known as seven transmembrane receptors and function in signal transduction. The nGPCRx coding sequences are useful for screening a human to diagnose a disorder affecting the brain or a genetic predisposition, specifically schizophrenia. nGPCRx are useful for identifying compounds useful for treating schizophrenia. DGPCRx are useful for identifying compounds useful as a diagnostic tool for diseases or disorders, infections such as HIV-1, metabolic and cardiovascular diseases, proliferative disorders and hormonal disorders. Modulators of nGPCRx activity have the utility for treating neurological disorders, including schizophrenia, ADHD/ADD and neurological disorders, including schizophrenia, ADHD/ADD and neuronal disorders such as Alzelmer's disease, Parkinson's disease, migraine and senile dementia. Additional disorders include inflammatory conditions (ed. G. G. Crohn's disease), rheumatoid arthritis, autoimmune disorders, cancers, respiratory alments such as asthma, and inflammatory disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACSTVLPLYAKAYVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRA 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RRKPRSLALLRTLSVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSL 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ASVLSLLAIALERSLIMARRGPAPVSSRGRTLAMAAAAWGVSLLLGLLPALGWNCLGRLD 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                INPIIYTÜTNRDLRHALLRLVCCGRHSCGRDPSGSQQSASAAEASGGLRRCLPPGLDGSF 360
                                                                                                                                                                                                                                                 New G protein-coupled receptor (nGPCR-x) and its encoding polynucleotide useful for diagnosing and treating e.g. schizophrenia
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MESGLLRPAPVSEVIVLHYNYTGKLRGARYQPGAGLRADAVVCLAVCAFIVLENLAVLLV 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            present invention relates to novel G protein-coupled receptors
                                                                                                                                                                      H LA, Hiebsch RR, Lind P, Slightom J;
Bannigan CM, Ruff V, Sejlitz T, Huff
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         / Match 100.0%; Score 2019; DB 22; Length 398; Local Similarity 100.0%; Pred. No. 8.5e-181; nes 398; Conservative 0; Mismatches 0; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                         Claim 37; Page 89; 261pp; English.
                                                                                                                                                                     od LS, Parodi LA,
Kaytes PS, Bannie
                                                                                                                                              (PHAA ) PHARMACIA & UPJOHN CO.
                                                               2000US-0190800.
2000US-0198568.
2000US-0201190.
                                       2000US-0188114
2000US-0190310
                                                                                                                   25-MAY-2000; 2000US-0207094
                                                                                                                                                                                                            2001-389826/41.
                                                                                                                                                                        Wood LS,
                                                                                                                                                                                                                           N-PSDB; AAH51007
                                                                            20-APR-2000;
02-MAY-2000;
08-MAY-2000;
                                                                                                                                                                                   Schellin KA,
                                       09-MAR-2000;
                                                    17-MAR-2000;
                                                                  21-MAR-2000;
                                                                                                                                                                      Vogel1 G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Loca
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             241
                                                                                                                                                                                                                                                                                                                     The
용
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
```

```
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present sequence represents a human G-coupled protein receptor, designated AXOR29. AXOR29 polypeptides and polynucleotides are useful for treating and diagnosing infections such as bacterial, fungal, protozoan and viral infections, particularly infections caused by HIV-1 or HIV-2, pain, cancers, diabetes, obesity, anorexia, bulimia, asthma, Parkinson's diseases, acute heart failure, hypotension, hypertension, urinary retention, osteoporosis, angina pectoris, myocardial infarction, stroke, ulcers, allergies, benign prostatic myocardial infarction, stroke, ulcers, allergies, benign prostatic hypertrophy, migraine, vomiting, psychotic and neurological disorders including anxiety, schizophrenia, manic depression, depression, delirium, dementia and severe mental retardation. The polypeptide is also useful as a vaccine for inducing immunological response in a mammal.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cancer; diabetes; obesity; anorexia; bulimia; asthma; hypotension; Parkinson's disease; acute heart fallure; hypertension; angina pectoris; urinary retention; osteopozosis; myocardial infarction; stroke; ulcer; allergy; benign prostatic hypertrophy; migraine; vomiting; schizophrenia; psychotic disorder; neurological disorder; anxiety; manic depression; depression; delirium; dementia; mental retardation; vaccine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human; G-coupled protein receptor; AXOR29; infection; HIV-1; HIV-2; pain;
Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Novel G-coupled protein receptor, AXOR29 useful for treating disessuch as microbial infections, cancers, obssity, asthma, diabetes, hypotension, osteoporosis, myocardial infarction and neurological disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Saran HM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 398;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Michalovich D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Amino acid sequence of a human AXOR29 polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ames RS, Elshourbagy N, Foley JJ, Michalovich I
Smith F, Tsui P, Vawter L, Agarwal P, Lane P;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; Score 2019; DB 22;
100.0%; Pred. No. 8.5e-181;
tive 0; Mismatches 0;
                                                                                                                                                                              361 SGSERSSPORDGLDTSGSTGSPGAPTAARTLVSEPAAD
```

The present sequence is human PFI-006 which is a putative G-protein coupled receptor (GPCR). PFI-006 was identified from chromosome 19. PPI-006 has anorectic, antidiabetic, neuroprotective, neuroleptic, noctropic, psychotropic, artidinflammatory, cytostatic, vulnerary, dermatological, osteopathic, cardiovascular and antialiery activities. It can be used in pharmaceuticals or in the manufacture of medicaments for the treatment of a patient having need to modulate, i.e. agonise or (selectively) antagonise PFI-006 protein. A compound which modulates PFI-006 can be used in dagnosing and treating a variety of diseases. These are also useful for evaluating and/or screening agents that can modulate the GPCR. In particular, they are useful for screening drug candidates for treating diseases associated with signal transduction.

including obesity, diabetes and metabolic disease, heurological disease, psychotherapeutics, urogenital disease, reproduction and sexual medicine, inflammation, cancer, tissue repair, dermatology, skin pigmentation, photoaging, frailty, osteoporosis, cardiovascular disease, gastrointestinal disease, annihilection, allergy and respiratory disease, sensory organ disorders, sleep disorders or hair loss.

399 AA;

Sequence

22; Page 37; 46pp; English.

```
New human G-protein coupled receptor polynucleotide and polypeptide, useful in drug screening, as well as for diagnosing or treating diseases associated with signal transduction, e.g. obesity,
                                                                                                                                                              tissue repair or cancer
                                                                                                        N-PSDB; AAF87722.
                                                                                                                                                            inflammation,
```

WPI; 2001-302043/32.

Harland L;

99GB-0023890

08-OCT-1999;

(PFIZ) PFIZER (PFIZ) PFIZER

06-OCT-2000; 2000EP-0308853

11-APR-2001

```
Human; PFI-006; G-protein coupled receptor; GPCR; chromosome 19; annotediabetic; neuroprotective; neuroleptic; nootropic; psychotropic; antiniflammatory; cytostatic; vulnerary; dermatological; osteopathic; cardiovascular; antiallargic; gene therapy; diabetes; G-protein coupled receptor modulator; signal transduction; obesity; metabolic disease; neurological disease; psychotherapeutic; inflammation; urogenital disease; reproduction; saxual medicine; cancer; tissue repair; dermatology; skin pigmentation; photoaging; frailty; osteoporosis; cardiovascular disease; gastrointestinal disease; antiinfection; allergy; respiratory disease; sensory organ disorder; sleep disorder; hair loss.
                                                                      181 ACSTVLPLYAKAYVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRA 240
                                                                                                                                                                                         LGRHPRFHAPMFLLLGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALT 120
                                                                                                                 ASVLSLLAIALERSLTMARRGPAPVSSRGRTLAMAAAAWGVSLLLGLLPALGWNCLGRLD 180
                                                                                                                                                                                                                                   RRKPRSLALLRTLSVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSL 300
                                                                                                                                                                                                                                                                                             LNPIIYTLTNRDLRHALLRLVCCGRHSCGRDPSGSQQSASAAEASGGLRRCLPPGLDGSF 360
                                                                                                                                                                                                                                                                                                           SGSERSSPQRDGLDTSGSTGSPGAPTAARTLVSEPAAD 398
                                                                                                                                                                                                                                                                                                                                                                     Human PFI-006 protein sequence SEQ ID NO:2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAB74956 standard; Protein; 399 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 06-JUL-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EP1090925-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAB74956;
                                                        61
                                                                                                                                           121
                                                                                                                                                                                                      181
                                                                                                                                                                                                                                   241
                                                                                                                                                                                                                                                                241
                                                                                                                                                                                                                                                                                          301
                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                                                                                                                                                                                                                            AAB74956
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                 g
                                                                                                                                        g
                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                             셤
                                                                                                              ò
                                                                                                                                                                        ò
                                                                                                                                                                                                                                ογ
                                                                                                                                                                                                                                                                                          ò
                                                                                                                                                                                                                                                                                                                                                      à
```

```
G-protein coupled receptor; EDG receptor; 14274 receptor; spleen discrder; splenomegaly; lung disorder; emphysema; chronic brichitis; colon disorder; atreata; stenosis; entercoolitis; liver disorder; jaundice; cholestasis; brain disorder; cerebral edema; cerebrovascular disease; Alzheimer's disease; Parkinson's disease;
                                                                                                                                                                                                              240
                                                                                                                                                                                                                                         240
                                                                                                                                                                                                                                                                   300
                                                                                                                                                             180
                                                                                                                                                                                     180
                                                                                                                                                                                                                                                                                           300
                                                                                                                                                                                                                                                                                                                      360
                                                                                                         61 LGRHPRFHAPMFLLLGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALT 120
                             Gaps
                                                                                 9
                                                   1 MESGLIARPAVSEVIVLHYNYTGKLRGARYOPGAGLRADAVVCLAVCAFIVLENLAVLLV 60
                                                                                                                                                       RRKPRSLALLRTLSVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSL
                                                                                                                                                                                                                                                                                                                   LNPIIYTLTNRDLRHALLRLVCCGRHSCGRDPSGSQQSASAAEASGGLRRCLPPGLDGSF
                                                                                                                                                                                                                                                                                                                                    ACSTVLPLYAKAYVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRA
                            ö
100.0%; Score 2019; DB 22; Length 399; 100.0%; Pred. No. 8.5e-181; 1.1ve. 0; Mismatches 0; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Amino acid sequence of a 14274 receptor protein.
                                                                                                                                                                                                                                                                                                                                                                          SGSERE SPORDGLDTSGSTGSPGAPTAARTLVSEPAAD 398
                                                                                                                                                                                                                                                                                                                                                                                       AAY69384 standard; Protein; 398 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Aftrst entry)
            Best Local Similarity 100.0
Matches 398; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19-JUN-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAY69384;
 Query Match
                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                  241
                                                                                                                                                                                                                                                                                                                                                                         361
                                                                                                                                                                                                                                                                                                                      301
                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT
AAY69384
                                                                       Q
                                                                                                                               a
                                                                                                       à
                                                                                                                                                                                   a
                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                 à
                                                                                                                                                                                                                                                                                           g
                                                                                                                                                          ò
                                                                                                                                                                                                              ò
                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                         à
```

ö

Length 398;

6

398 AA;

Sequence

X S

```
T-cell disorder; autoimmune disease; transplant rejection; skin disease; vitiligo; lentigo; malignant melanoma; heart disorder; ischemic heart disease; kidney disorder; cystic disease; inflammation; mastitis; mammary duct ectasia; prostate disorder; benign enlargement;
                                                                                     "transmembrane domain segment"
                                                                                                    "transmembrane domain segment"
                                                                                                                   "transmembrane domain segment"
                                                                                                                                               "transmembrane domain segment"
                                                                                                                                                     .213
e- "transmembrane domain segment"
                                                                                                                                                                                            "transmembrane domain segment"
                                                                                                                                                                                                ..398
te- "intracellular domain"
                                                                       'note- "extracellular domain"
                                                                                                                                                                            "transmembrane domain
                                                                                                                       ...134
hte- "GPCR signature"
                                                                                                                                                                                                                                                                                                      Glucksmann MA, Weich NS, Hunter JJ;
                                                           Location/Qualifiers
1..39
                                                                                                                                                                                                                                                                                        (MILL-) MILLENNIUM PHARM INC
                                                                                                                                                                                                                                                                   98US-0136726,
99US-0377429.
                                                                                                                                                                                                                                                     99WO-0318976
                                                                                                                                                                   ..273
                                                                                                           ..131
                                                                                                                                                                                   ..308
                                                                                40..62
/note=
                                                                                                       /note=
                                                                                                                                                                                                                                                                                                                   WPI; 2000-224699/19.
N-PSDB; AAZ61489.
                                                                                                                                                                                                                       WO200011166-A1
                                            Homo saptens.
                                                                                                                                                                                                                                                                  19-AUG-1998;
19-AUG-1999;
                                                                                                                                                                                                                                                    .9-AUG-1999;
                                                                                                                                                                                                                                      02-MAR-2000.
                               tumour.
                                                          Key
Domain
                                                                               Domain
                                                                                              Domain
                                                                                                           Domain
                                                                                                                          Region
                                                                                                                                       Doma1n
                                                                                                                                                      Domain
                                                                                                                                                                     Domain
Domain
                                                                                                                                                                                   Domain
                                                                                                                                                                                                  Domain
```

The present sequence represents a polypeptide which is a G-protein coupled receptor (GPCR) related to the EDG (undefined) receptor family, and is designated the 14274 receptor. The receptor polypeptides are useful for producting antibodies specific for the GPCR 14274 receptor protein, and in drug screening assays, in cell-based or cell-free systems. The receptor polypeptide may also be used to identify compounds that medulate receptor activity, that is compounds which stimulate or inhibit interaction between the receptor protein and a target molecule. Modulators of receptor protein activity are used to treat subjects with a disorder mediated by the GPCR 14274 receptor pathway, such as; an emplyseme, chronic brombitis), disorders of the colon (such as arenosis, enterocolitis), disorders of the liver (such as arresia, stenosis, enterocolitis), disorders of the liver (such as careatal edema, careatal disease, Alabelmer's disease, Parkinson's disease), disorders of the brain (such as cerebral edema, careforminal disease, Alabelmer's disease, Parkinson's transplant of disorders (such as sutclimmune disease), kidney disorders (such as stitligo, lentigo, malignant complement), skin diseases (such as sichemic heart disease), kidney disorders (such as sichemic heart disease), kidney disorders (such as sichemic heart disease), kidney disorders (such as sichemic ectasia), and prostate disorders (such as lifiammations, benign enlargement, tumours). New G-protein coupled receptor used in receptor assays as a target for diagnosis and treatment of receptor-mediated disorders of the spleen, lung, brain, heart and liver Claim 1; Fig 1; 102pp; English.

```
Human; orphan G protein-coupled receptor; GPCR; hCHN6; drug screening; transmembrane receptor; expressed sequence tag; EST; signal cascade.
                                                                                                                                              240
                                                                                 121 ASVLSLLAIALERSLIMARRGPAPVSSRGRTLAMAAAAWGVSLLLGLLPALGWNCLGRLD 180
                                                                                                                                                                                  300
                                                                                                                                                                                                  300
                                                                      61 LGRHPRFHAPMFLLLGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALT 120
                                                                                                                                                                                                                            Gaps
                                   241 RRKPRSLALLRTLSVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSL
                                                                                                                                                                                        301 INPIIYTLINRDLRHALLRLVCCGRHSCGRDPSGSQQSASAAEASGGLRRCLPPGLDGSF
                    ö
                    Indels
           1.1e-180
                                                                                                                                                                                                                                                      SGSERSSPORDGLDTSGSTGSPGAPTAARTLVSEPAAD 398
                                                                                                                                                                                                                                                               Human orphan G protein-coupled receptor hCHN6.
Query Match 100.0%; Score 2018;
Best Local Similarity 99.7%; Pred. No. 1.1e
Matches 397; Conservative 1; Mismatches
                                                                                                                                                                                                                                                                                                                  AAY71305 standard; Protein; 500 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 990S-0120416.
990S-0121852.
990S-0123946.
990S-0123949.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99US-0136437.
99US-0136439.
99US-0136567.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       99WO-US23687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98US-0109213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99US-0137127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99US-0137131
99US-0141448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99US-0156633
99US-0156634
                                                                                                                                                                                                                                                                                                                                                     02-NOV-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99US-0156555
                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200031258-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                   Homo septens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       13-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     02-JUN-2000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   [6-FEB-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           26-FEB-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      28-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                28-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       28-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28-MAY-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              12-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28-MAY-1999
                                                                                                                                                                                                                                                                                                                                    AAY71305;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   12-MAR-1
                                                                                                                                                                                                                                                                                                 S
                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                                                          AAY71305
                                    ò
                                                    ద
                                                                     ò
                                                                                    ద
                                                                                                        ò
                                                                                                                        g
                                                                                                                                           ò
                                                                                                                                                            g
                                                                                                                                                                              ò
                                                                                                                                                                                               8
                                                                                                                                                                                                                  à
                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                     ò
                                                                                                                                                                                                                                                                       셤
```

99US-0156653

AAB02839 standard; Protein; 500 AA

22-AUG-2000 (first entry)

AAB02839

```
The present amino acid sequence is the hCHN6, an endogenous human orphan G protein-coupled receptor (GPCR). The hCHN6 cDNA was identified or using ESTS (expressed sequence tag) AA804531 and 2134670 as a probe.

"The orphan GPCR of the invention, like all GPCRs has seven transmembrane alpha helices with an extracellular N-terminus and an intracellular C-terminus. However, no endogenous ligands has yet been identified for the proteins of the invention. The orphan GPCRs may be used in the identification of their endogenous ligands, and to screen potential GPCR agonists and antagonists for use as pharmaceutical agents. The proteins can any also be used in the study of GPCR-mediated signalling cascades, and to elucidate their precise role in normal and diseased human conditions. Nucleic acid encoding human orphan GPCRs may be used for tissue contains and pathological states.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                       Novel human orphan G protein-coupled receptors and the encoding cDNAs for use in the identification of G protein_coupled receptor agonists
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    121 ASVLSLLAIALERSLTWARRGPAPVSSRGRTLAMAAAAWGVSLLLGILPALGWNCLGRLD 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  223 asvlsllaialersitmarrgpapvssrgrtlamaaaawgvslllgllpalgwnclgrld 282
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LGRHPRFHAPMFLLLGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ACSTVLPLYAKAYVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRA 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RRKPRSLALLRTLSVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSL 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        LNPIIYTLTNRDLRHALLRLVCCGRHSCGRDPSGSQQSASAAEASGGLRRCLPPGLDGSF 360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  462
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 MESGLLRPAPVSEVIVLHYNYTGKLRGARYQPGAGLRADAVVCLAVCAFIVLENLAVLLV 60.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ó
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 500;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 2013; DB 21;
Pred. No. 4.1e-180;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SGSERSSPQRDGLDTSGSTGSPGAPTAARTLVSEPAAD 398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 58; Page 79-81; 102pp; English.
                                                                                                                                                                  Lin I;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    99.7%;
                                                                                                                                                                  Llaw CW,
                                                                                      99US-0416760
99US-0417044
                                            99US-0157282
                                                                          99US-0157294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity 99.7
Matches 397; Conservative
                                                                                                                                  (AREN-) ARENA PHARM INC
                                                                                                                                                                                          WPI; 2000-400068/34
                                                                                                                                                                  Dang HT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           500 AA
                                                                                                                                                                                                             N-PSDB; AAD01132
                                         01-0CT-1999;
01-0CT-1999;
01-0CT-1999;
12-0CT-1999;
                                                                                                      12-OCT-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                Chen R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         463
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           361
ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             요
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ò
```

```
inverse agonists or partial agonists for use as pharmaceutical agents. AAA46017 to AAA46126 and AAB02825 to AAB02859 represent sequences used in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present invention describes transmembrane receptors, preferably human G protein coupled receptors (GPCR), for which the endogenous ligand is unknown (orphan GPCR receptors). More specifically the present invention relates to non-endogenous, constitutively activated versions of a human GPCR. These non-endogenous human GPCRs can be useful for the direct identification of candidate compounds as receptors agonists,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Non-endogenous, human G protein-coupled receptors for screening receptor, inverse or partial agonists useful as therapeutic agents
                                                                                                            Human; G protein coupled receptor; GPCR; transmembrane receptor; identification; agonist; screening; therapeutic; pharmaceutical;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Dang HT;
                                                                                      Human G protein coupled receptor hCHN6 protein SEQ ID NO:32.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Chen R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Behan DP, Lehmann-Bruinsma K, Chalmers DT, (
Gore M, Liaw CW, Lin I, Lowitz K, White C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 1; Page 109-111; (187pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        99US-0137567.
99US-0141448.
99US-0151114.
                                                                                                                                                                                                                                      99WO-US24065
                                                                                                                                                                                                                                                                                                                                                                                                                                     99US-0136439
99US-0137127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99US-0156634
                                                                                                                                                                                                                                                                                                                                                                                                                                                              90S-0137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (AREN-) ARENA PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2000-317986/27.
N-PSDB; AAA46033.
                                                                                                                                                                                     WO200022131-A2
                                                                                                                                                               Homo sapiens
                                                                                                                                                                                                                                    13-OCT-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 29-SEP-1999;
                                                                                                                                                                                                            20-APR-2000
                                                                                                                                                                                                                                                              13-0CT-1998
                                                                                                                                                                                                                                                                                                                                      2-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                           2-MAR-199
                                                                                                                                                                                                                                                                                                                                                                                      2-MAR-199
                                                                                                                                                                                                                                                                                                                                                                                                                                                               8-MAY-199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         8-MAY-199
                                                                                                                                                                                                                                                                                                                                                               2-MAR-199
                                                                                                                                                                                                                                                                                                                                                                                                                           8-MAY-199
                                                                                                                                                                                                                                                                                                                                                                                                                                      28-MAY-199
                                                                                                                                                                                                                                                                                                                                                                                                                                                  28-MAY-199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -AUG-199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Behan DP,
                                                                                                                                                                                                                                                                                                                           6-FEB-1
                                                                                                                                                                                                                                                                                                                                                  2-MAR-1
                                                                                                                                                                                                                                                                                     0-NOV-1
                                                                                                                                                                                                                                                                                                              6-FEB-1
                                                                                                                                      mutant.
                                                                                                                                                                                                                                                                                                   - NON - /
                                                                                                                                                                                                                                                                                                                                                                                                              8-MAY-
G
```

500 AA;

Sequence

ဖ

ä

```
8888888
                                                                                                                                   ö
                                                                                                                                                   셤
                                                                                                                                                                                       요
                                                                                                                                                                                                                            g
                                                                                                                                                                                                                                                                ద
                                                                                                                                                                     ò
                                                                                                                                                                                                           õ
                                                                                                                                                                                                                                                à
                                                                                                                                                                                                                                                                                     à
                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                         ö
                                                                                                                                                                                                                                                                                                                                          a
                                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                             g
            ö
                                                              LGRHPRFHAPMFLLLGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       nervous
                                                                         ASVLSLLAIALERSLIMARRGPAPVSSRGRTLAMAAAAWGVSLLLGLLPALGWNCLGRLD 180
                                                                                                           ACSTVLPLYAKAYVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRA 240
                                                                                                                                                  RRKPRSLALLRTLSVVLLAFVACWGPLFLLLLLLDVACPARTCPVLLQADPFLGLAMANSL 300
                                      360
                                                                                                                                                                                                                           Gaps
                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present sequence is rat G protein-coupled receptor (GPCR), BIC3 which is expressed in the central nervous system of rats. BIC3 nucleic acids and recombinant proteins are useful in assays to identify agents capable of binding to the receptor, which modulate
                          1 MESGLLRPAPVSEVIVLHYNYTGKLRGARYQPGAGLRADAVVCLAVCAFIVLENLAVLLV
                                                                                                                                                                                                               LNPIIYTLTNRDLRHALLRLVCCGRHSCGRDPSGSQQSASAAEASGGLRRCLPPGLDGSF
                                                                                                                                                                                                                                                                                                                                                                                             B1C3; intracellular signal;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New G protein-coupled receptor, BIC3, expressed in the central r
system of rats, for screening modulators of the receptor and
identifying agents of therapeutic use capable of binding to the
           ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Walker P;
          Indels
 Pred. No. 4.1e-180;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     O'donnell D, Pelletier M,
                                                                                                                                                                                                                                                    SGSERSSPORDGLDTSGSTGSPGAPTAARTLVSEPAAD 398
                                                                                                                                                                                                                                                             Rat G protein-coupled receptor (GPCR), B1C3
                                                                                                                                                                                                                                                                                                                                                                                             Rat, G protein-coupled receptor; GPCR; analgesic; anaesthetic; drug screening.
                                                                                                                                                                                                                                                                                                                       Š
                                                                                                                                                                                                                                                                                                                   AAY72561 standard; Protein; 400
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 1; Fig 2; 35pp; English.
99.78;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99SE-0002763.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20-JUL-2000; 2000WO-SE01505
                                                                                                                                                                                                                                                                                                                                                        (first entry)
          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Æ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Hoffert C,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (ASTR ) ASTRAZENECA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2001-159515/16.
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                N-PSDB; AAD02561
                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200105829-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                21-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                        02-MAY-2001
          397;
                                                                                                                                                                                                                                                                                                                                                                                                                                                           25-JAN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                        Rattus sp.
                                                                                                                                                                                                                                                                                                                                      AAY72561;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ahmad S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              receptor
                                                                                                                                                                           241
         Matches
                                             103
                                                              61
                                                                                                                    223
                                                                                                  121
                                                                                                                                                                                             343
                                                                                                                                                                                                               301
                                                                                                                                      181
                                                                                                                                                                                                                                                     361
                                                                                                                                                                                                                                                                    463
                                                                                                                                                                                                                                                                                                 à
                                          g
                                                              à
                                                                             셤
                                                                                                 ö
                                                                                                                 셤
                                                                                                                                      ð
                                                                                                                                                     셤
                                                                                                                                                                                                           õ
                                                                                                                                                                                                                                셤
                                                                                                                                                                                                                                                                  a
                                                                                                                                                                         ò
                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                    ö
```

```
239
                                                                                                                                                                                                                                                                                                            180
                                                                                                                                                                                                                                                                                                                       240
                                                                                                                                                                                                                                                                                                                                                                                                                       299
                                                                                                                                                                                                                                                                                                                                                                                                                                                 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EDG-1; EDG-2; EDG-3; EDG-4; EDG-5; PSP-24; human; detection; therapy; inverse agonist; allosteric modulator; lysophosphatidic acid receptor; LPA signalling mediated disease; cellular apoptosis.
                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                  LGRHPRFHAPMFLLLGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         9
                                                                                                                                                                                                                         9
intracellular signalling such as adenyl cyclase activity or intracellular calcium concentration. These agents have potential therapeutic applications as either analgesics or anaesthetics. BIC3 receptors are also useful for screening drug candidates using cell signalling assays. Antibodies to BIC3 are useful in purification of intact receptor or fragments of the receptor.
                                                                                                                                                                                          LINPIIYTLINRDLRHALLRLVCCGRHSCGRDPSGS-QQSASAAEAS-GGLRRCLPPGLD
                                                                                                                                                                                                                                                                                                                                                              ACSTVLPLYAKAYVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGT-AGTTSTR
                                                                                                                                                                                                                                                                                                                                                                                                                    AFRKPRSLALLRTLSVYLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANS
                                                                                                                                                                                                                                                                                                                                                                                                                                 ASVLSLLAIALERSLTMARRCPAPVSSRGRTLAMAAAAWGVSLLLGLLPALGWNCLGRLD
                                                                                                                                          22; Length 400;
                                                                                                                                                                      ٠,
,
                                                                                                                                    Query Match 84.9%; Score 1714.5; DB 22; Lengt Best Local Similarity 87.2%; Pred. No. 2.7e-152; Matches 346; Conservative 14; Mismatches 34; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               358 GSFSGSERSSPQRDGLDTSGSTGSPGAPTAARTLVSE 394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Kiefer M;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAY05489 standard; Protein; 382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (LXRB-) LXR BIOTECHNOLOGY INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human EDG-2 protein sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98WO-US21315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         97US-0061572
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Goddard JG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1939-277658/23
                                                                                              400 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N-PSDB; AAX36566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         W09919513-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo saptens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    07-JUL-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               09-OCT-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          10-OCT-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      22-APR-1999.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Erikson J,
                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAY05489;
                                                                                                                                                                                                                                                  61
                                                                                                                                                                                                                                                                                                                                                              181
                                                                                                                                                                                                                                                                                                                                                                                                                    240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         300
                                                                                                                                                                                                                                                                                                        121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAY05489
```

(ATAI-) ATAIRGIN TECHNOLOGIES INC

99US-0376399

18-AUG-1999;

```
;
9
                                                                                  This sequence represents human EDG-2. The inversion relates to methods of detecting (ant)agonist, inverse agonist or allosteric modulators of the lysophosphatidic acid receptors EDG-1, EDG-2, EDG-3, EDG-4, EDG-5, and PSP-24. The methods are used to identify (ant)agonists and allosteric modulator of the lysophosphatidic acid (LPA) EDG2 receptor, e.g. to treat LPA signalling mediated disease such cellular apoptosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   LPA receptor; EDG-2; lysophosphatidic acid; phospholipid; tumour; cell signalling; MAP kinase; LPA modulator; neurodegenerative disease; Alzheimer's disease; Parkinson's disease; neuron damage; apoptosis; ischaemic heart disease; viral; HIV; inflammatory bowel disease;
                                                                                                                                                                                                                                                                                                                                                                                        72 FLLLGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLSLLAIAL 131
                                                                                                                                                                                                                                                                                                                                                                                                                                        191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               192 AYVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRARRKPRSLALLR 251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TLSVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSLLNPIIYTLTNR 311
            Identification of (ant)agonists of LPA receptor EDG-2 for, e.g. treating LPA signalling mediated diseases such as cellular apoptosis
                                                                                                                                                                                                                                                                                                                                               80
                                                                                                                                                                                                                                                                                                               EVIVLHYNYTGKLR-GARYQPGAGLRADAVYCLAVCAFIVLENLAVLLVLGRHPRFHAPM 71
                                                                                                                                                                                                                                                                                                                                 ::|| ||||||||| || : ||: :|| ||:|||: ||| : : :|| ||
23 dilvrhynytgklniga--ekdhgikltsvvfilliccfillenifvlltiwktkkfhrpm
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DLRHALLRLVCCGRHSCGRDPSGSQQSASAAEASGGLRRCLPPGLDGSFSGSERSS-PQR
                                                                                                                                                                                                                                                                                                                                                                                                                                     ERSLTMARRGPAPVSSRGRTLAMAAAAWGVSLLLGLLPALGWNCLGRLDACSTVLPLYAK
                                                                                                                                                                                                                                                      42.9%; Score 865.5; DB 20; Length 382;
48.5%; Pred. No. 7.6e-73;
tive 66; Mismatches 105; Indels 21;
                                                                                                                                                                                                                                                               , 6e-73;
has 105;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LPA receptor-related amino acid sequence #1.
                                                          Claim 1; Page 51-52; 63pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAU00302 standard; Protein; 382 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   organ transplant; human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           371 DGLDTSGSTGSPG 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ddgdnpetimssg 376
                                                                                                                                                                                                                                                                    Similarity
                                                                                                                                                                                                         382 AA;
                                                                                                                                                                                                                                                    Query Match
Best Local Simi
Matches 181;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Homo saptens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            31-MAY-2001
                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAU00302;
                                                                                                                                                                                                                                                                                                               13
                                                                                                                                                                                                                                                                                                                                                                                                                                   132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                141
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 X44X4X0000000X8
                                                                                                                                                                                                                                                                                                                                          윱
                                                                                                                                                                                                                                                                                                                                                                        à
                                                                                                                                                                                                                                                                                                                                                                                                   g
                                                                                                                                                                                                                                                                                                                                                                                                                                                             g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
```

11-AUG-2000; 2000WO-US22101

40200112838-A2

```
repair of neuronal cells, neurodegenerative diseases, such as Alzheimer's disease, parkinson's disease, and acute neuron damage, for modulating apoptotic pathways and treating ischeemic heart disease, tumours, viral diseases bowel disease, and rejection of organ transplants.
                                                                                                                                                                                                                                                                                   The sequence represents the LPA receptor-related amino acid sequence #1 used during analysis of lysophosphatidic acid receptor (LPA), EDG-2. The sequence is given in the specification but no further information is given. LPA is a phospholipid found in a variety of plant and animal products. EDG-2 is involved in cell signalling through activation of a MAP kinase, cascade-dependent reporter. Modilating the activity of a lysophosphatidic acid (LPA) or LPA receptor (EDG-2) involves introducing a composition comprising LPA modulators to the LPA or receptor. The method is useful for treating diseases characterised by slowed growth or method is useful.
                                                                                                                                                                 Modulating activity of a lysophosphatidic acid or its receptor for treating tumours, viral diseases, involves introducing to LPA or its receptor a composition containing diol, epoxide or phosphate compound
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  132 ERSLIMARRGPAPVSSRGRTLAMAAAAWGVSLLLGLLPALGWNCLGRLDACSTVLPLYAK 191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    312 DLRHALLRLVCCGRHSCGRDPSGSQQSASAAEASGGLRRCLPPGLDGSFSGSERSS-PQR 370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              72 FLLLGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLSLLAIAL 131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  192 AYVLECVLAFVGILAAICALYARIYCOVRANARRLPARPGTAGTTSTRARRKPRSLALLR 251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      252 TLSVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSLLNPIIYTLTNR 311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              13 EVIVLHYNYTGKLR-GARYQPGAGLRADAVVCLAVCAFIVLENLAVLLVLGRHPRFHAPM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 382;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      42.9%; Score 865.5; DB 22; Length
48.5%; Pred. No. 7.6e-73;
Live 66; Mismatches 105; Indels
                                                                                    ä
                                                                                    Picker
                                                                                                                                                                                                                                                          Disclosure; Page 76-78; 89pp; English.
                                                                                  Kiefer M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAB28521 standard; Protein; 382 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Best Local Similarity 48.5
Matches 181; Conservative
                                                                                Goddard JG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              371 DGLDTSGSTGSPG 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                364 ddgdnpetimssg 376
                                                                                                                  WPI; 2001-226550/23.
N-PSDB; AAS00257.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        382 AA;
                                                                                  Erickson J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAB28521
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAB28521
ID AAB2
XX
AC AAB2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT
ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            윤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                á
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ð
```

ë

```
AAW01664;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Seguence
                                                                                                                                                               11
                                                  312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      133
                                                                                                                                                                         AAW01664
ID AAW0
                         8
                                               õ
                                                                      g
                                                                                                  à
                                                                                                                        셤
                                                                                                                                                                                                  g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                     The present sequence is mouse EDGI. Agonists and antagonists of mouse EDGI are useful for treating patients with enhanced or inhibited activity or expression of EDGI. The EDGI polypeptide is useful for treating abnormal conditions such as infections caused by bacteria, fungletc., pain, cancer, diabetes, obesity, anorexia, bulimia, asthma, parkinson's disease, acute heart failure, hypotension, hypertension, uninary retention, osteoporosis, angina pectoris, myocardial infarction, stroke, ulcers, allergies, bandon prostatic and neurological disorders including anxietty, schizophrenia, manic depression, depression, delitium, dementia and severe mental retardation and dyskinesias such as Huntington's disease or Gilles dela rourett's
                                            Mouse; EDG1; antimicrobial; cytostatic; analgesics; antidiabetic; antiparkinsonian; cardiant; osteopathic; anorectic; antiasthmatic; antiparkinsonian; cardiant; osteopathic; neuroleptic; antiuleer; antidepressant; infection; cancer; diabetes; eating disorder; asthma; Parkinson's disease; heart failure; hypotension; hypertension; osteoporosis; angina pectoris; stroke; ulcer; allergy; benign prostatic hypertrophy; migraine; vomiting; neurological disorder.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            72 FILLGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLSLLAIAL 131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ERSLTMARRGPAPVSSRGRTLAMAAAWGVSLLLGLLPALGWNCLGRLDACSTVLPLYAK 191
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           192 AYVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRARRKPRSLALLR 251
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               13 EVIVLHYNYTGKLR-GARYQPGAGLRADAVVCLAVCAFIVLENLAVLLVLGRHPRFHAPM 71
                                                                                                                                                                                                                                                                                                                                                                 Murine EDG1 polypeptide useful for treating infections and diseases such as cancer, diabetes, Parkinson's disease, allergies, and neurological disorders such as anxiety schizophrenia, depression -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 21; Length 382;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               42.8%; Score 863.5; DB 21; Length allarity 48.5%; Pred. No. 1.2e-72; Conservative 65; Mismatches 106; Indels
                                                                                                                                                                                                                                                                                                                                                                                                               Claim 1; Page 31-32; 34pp; English.
                                                                                                                                                                                                                                                                                (SMIK ) SMITHKLINE BEECHAM CORP
                                                                                                                                                                                                                    05-APR-2000; 2000WO-US09075.
                                                                                                                                                                                                                                            05-APR-1999; 99US-0127696.
06-FEB-2001 (first entry)
                       Mouse EDG1 polypeptide.
                                                                                                                                                                                                                                                                                                                             WPI; 2000-664960/64.
N-PSDB; AAC63385.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              382 AA;
                                                                                                                                                                     WO200059529-A1.
                                                                                                                                              Mus musculus
                                                                                                                                                                                            12-OCT-2000.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Best Local Sim
Matches 181;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Seguence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        syndrome
                                                                                                                                                                                                                                                                                                        Tsui P;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     141
```

```
p(H218); G-protein coupled receptor; cell differentiation; prolliferation; prolline directed kinase; cell division; growth factor response; rat-edg;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This sequence is a novel rat protein p(rat-edg), a member of the G-protein coupled receptor (GPR) superfamily of proteins. The amino acid similarity between p(H318) (AAW01663) and p(rat-edg) suggests that they may be activated by the same endogenous lignnd(s). The expression pattern of mRNA transcripts of both genes in cell lines, various rat tissues and developing rat brain suggests that they both play a role in cell proliferation and/or differentiation.
RSLTMARRGPAPVSSRGRTLAMAAAAWGVSLLLGLLPALGWNCLGRLDACSTVLPLYAKA 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EVIVLHYNYTGKLRGARYQPGAGLRADAVYCLAVCAFIVLENLAVLLVLGRHPRFHAPMF 72
                                                                                                            DERHALLRLVCCGRHSCGRDPSGSQQSASAAEASGGLRRCLPPGLDGSFSGSERSS-PQR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ::|| ||||||||||||| : ||: :|| |:|||: ||| ||||| : :|| |||| ||| 24 dilvrhynytgkl-nigvekdhgikltsvvfillicclililenifvlltiwktkkfhrpmy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 383;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
42.3%; Score 853.5; DB 18; Length
Best Local Similarity 47.6%; Pred. No. 1e-71;
Matches 177; Conservative 66; Mismatches 110; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DNA encoding rat protein p(H218) - associated with cell proliferation and/or differentiation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            P(rat-edg), G-protein coupled receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 9; Column 17-20; 33pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                        AAW01664 standard; Protein; 383 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               94US-0196989.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    94US-0196989.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                        364 dcgdnpetimssg 376
                                                                                                                                                                                                                      371 DGLDTSGSTGSPG 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (MACL/) MACLENNAN A J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 1997-051235/05.
N-PSDB; AAT58506.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         therapy; diagnosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     383 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Rattus rattus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Maclennan AJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15-FEB-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15-FEB-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17-DEC-1996.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-APR-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US5585476-A
```

ŝ

ö g ð 8 ð 윱 ð

```
The present sequence represents a protein designated rat-edg. The rat-edg polypeptide is a member of the G-protein coupled receptor superfamily. The specification also describes a protein designated H218, which is also a member of the G-protein coupled receptor superfamily. H218 is involved in cell proliferation and differentiation, and in disease states such as cancer. The polynucleotides and polypeptides can be used to develop products for diagnosis and therapy.
252
                                                                    258
                                                                                              312
                                                                                                         371
                                                                                                                                                            203 yilfettvftlillsivilyeriyslvrtrsrrltfrk----niskasrssekslallkt
                                      193 YVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRARRKPRSLALLRT
                                                                                        253 LSVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSLLNPIIYTLTNRD
                                                                                                                                             LRHALLRLVCCGRHSCGRDPSGSQQSASAAEASGGLRRCLPPGLDGSFSGSERSS-PQRD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New isolated polynucleotide encoding a G-protein coupled receptor used to develop products for use in diagnosis and therapy of conditions involving cell proliferation and differentiation
                                                                                                                                                                                                                                                                                                                                                                                                #118; G-protein coupled receptor superfamily; cell proliferation;
cell differentiation; cancer; rat-edg; diagnosis; therapy.
                                                                                                                                                                                                                                                                                                                                                                       Rat-edg, G-protein coupled receptor superfamily member.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Disclosure; Columns 23-26; 33pp; English.
                                                                                                                                                                                                                                                                                         AAW87791 standard; Protein; 383 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9603-0760936
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              94US-0196989.
96US-0760936.
                                                                                                                                                                                                                                                                                                                                             12-MAR-1999 (first entry)
                                                                                                                                                                                               372 GLDTSGSTGSPG 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (MACL/) MACLENNAN A J.
                                                                                                                                                                                                                        366 dgdnpetimssg 377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 1999-105192/09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N-PSDB; AAV84036
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MacLennan AJ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     06-DEC-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              15-FEB-1994;
06-DEC-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                JS5856443-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           05-JAN-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                         Rattus sp.
                                                                                                                                                                                                                                                                                                                    AAW87791;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Seguence
                                                                                                                                             313
                                                                                                                                                                                                                                                               a
                                     ò
                                                             셤
                                                                                        ò
                                                                                                               a
                                                                                                                                            ò
                                                                                                                                                                   셤
                                                                                                                                                                                               à
                                                                                                                                                                                                                     g
```

```
BGD-1c receptor; sphingosine-1-phosphate; S-1-p; human; anti-arrythmic; dilydro sphingosine-1-phosphate; anti-HTV anti-asthmatic; cytostatic; anti-ATV santi-asthmatic; cytostatic; anti-ATV santi-asthmatic; cytostatic; anti-ATV santi-asthmatic; cytostatic; treatment; infection; bacterial; fungal; protozoan; viral; HTV-1; HTV-2; cancer; dabetes; obesity; anorexia; bullinia; parkinson's disease; asthma; acute heart failure; hypertension; hypotension; osteoporosis; urinary retention; angina pectoris; myocardial infarction; stroke; cogestive heart failure; left venticular hypertroph; arrythmia; restenosis; coronary artery angloplasty; vascular sclerosis; allergy; inflammation; deleterious fibrosis; artherosclerosis; anglogenesis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 wound healing; ulcer; benign prostatic hypertrophy; migraine; vomiting; psychotic disorder; neurological disorder; anxiety; schizophrenia; manic depression; depression; delalitium; dementia; degenerative disease; severe mental retardation; neurodegenerative disease; dyskinesia; Huntington's disease; dilles de la Tourett's syndrome.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Johnson RK, Khandoudi N, Livi GP;
                                                                       252
                                                                                                                                                                                                                                        258
                                                                                                                                                                                                                                                                                              RSLIMARRGPAPVSSRGRILAMAAAAWGVSLLLGLLPALGWNCLGRLDACSTVLPLYAKA 192
                                                                                                                                                                                                                                                                                                                                              313 LRHALLRLVCCGRHSCGRDPSGSQQSASAAEASGGLRRCLPPGLDGSFSGSERSS-PQRD 371
LLLGSLILSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLSLLAIALE
                                                                                                                                                                                                 YVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRARRFPRSLALLRT
                                                                                                                                                                                                                                                                       253 LSYVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSLLNPIIYTLTNRD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Chambers JK, Chan W,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAY33205 standard; Protein; 381 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (SMIK ) SMITHKLINE BEECHAM CORP. (SMIK ) SB LAB PHARM. (SMIK ) SMITHKLINE BEECHAM PLC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SB LAB PHARM.
SMITHKLINE BEECHAM PLC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human EDG-1c receptor protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98US-0077369.
98US-0087102.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99WO-US04675
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bergsma DJ, Chambers
Robert P, Stadel JM,
                                                                                                                                                                                                                                                                                                                                                                                                                    372 GLDTSGSTGSPG 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                         366 dgdnpetimssg 377
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STADEL P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      W09946277-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            04-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16-SEP-1999,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  09-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAY33205;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (STAD/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RESULT 13
                                                    73
                                                                                                                           133
                                                                                                                                                                                                 193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAY33205
                                                                                                                                                          g
                                                                                                                                                                                                                                  염
                                                                                                                                                                                                                                                                                                                                            ö
                                                                                                                                                                                                                                                                                                                                                                                 g
                                                  ò
                                                                                   qq
                                                                                                                       ŏ
                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                       ö
                                                                                                                                                                                                                                                                                                        Ďά
                                                                                                                                                                                                                                                                                                                                                                                                                      ò
```

ŝ

Gaps

19;

13 EVIVLHYNYTGKLRGARYQPGAGLRADAVVCLAVCAFIYLENLAVLLVLGRHPRFHAPMF 72

ð

Ouery Match 42.3%; Score 853.5; DB 20; Length 383; Best Local Similarity 47.6%; Pred. No. 1e-71; Matches 177; Conservative 66; Mismatches 110; Indels 19;

us-09-842-316-2.rag

```
endothelial cell differentiation; enzyme cascade; development.
                                                                                                                                                               G-protein coupled receptor encoded by human edg-1 gene.
                                                                                                            16-JAN-1992 (first entry)
                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                  This invention describes a novel human selective receptor for sphingosine-1-phosphate and dihydro sphingosine-1-phosphate, designated CC sphingosine-1-phosphate and dihydro sphingosine-1-phosphate, designated EDG-1C. The products of the invention have anti-arythmic, anti-HIV, anti-asthmatic, cytostatic, anti-anginal, antimicrobial, anti-asthmatic, cytostatic, anti-anginal, antimicrobial, consistentifying agonists and antagonists/Inhibitors, and for detecting deseases associated with inappropriate EDG-1c activity or levels. EDG-1c polypeptides and polynucleotides, agonists, antagonists and antibodies are used to treat diseases, including infections such as bacterial, are used to treat diseases, including infections such as bacterial, cancers; diabetes; obesity; anorexis, builmia; asthma; parkinson's retention; osteoporosis; angina pectoris; myocardial infarction; stroke; congestive heart failure; hypertension; hypertrophy; arrhythmia's; retention; osteoporosis; angina pectoris; myocardial infarction; stroke; congestive heart failure; left ventricular hypertrophy; arrhythmia's; deleterious fibrosis; artherosclerosis; inflammation; angiopenseis; wound congestive heart failure; between antericular hypertrophy; migraine; deleterious fibrosis; artherosclerosis; inflammation; angiopenseis; wound ting; psychotic and neurological disorders; including anxiety, schizophrenia, manic depression, depression, delizium, dementia, and neurological diseases such as neuroscleotide is also useful as a source of primers and dyskinesias such as untington's disease of dilles dela Touret's syndrome. The polynucleotide is also useful as a source of primers and probes, and also ceptor protein described in the method of the Invention.
                                                                                       t selective receptor for sphingosine-1-phosphate designated El
to treat human diseases and disorders, as well as infections
                                                                                                                                                                        Claim 1; Fig 2; 51pp; English.
   WPI; 1999-551357/46.
N-PSDB; AAZ09756.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               381 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Seguence
                                                                                       Novel
```

```
Hla TT,
                                             ŝ
                                                                                                                                73 LLLGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLSLLAIALE 132
                                                                                                                                                   133 RSLTWARRGPAPVSSRGRTLAMAAAAWGVSLLLGLLPALGWNCLGRLDACSTVLPLYAKA 192
                                                                                                                                                                                                                253 LSVVLLAFVACWGPLFILLLLDVACPARTCPVLLQADPFLGLAMANSLLNPIIYTITNRD 312
                                           Gaps
                                                                                                                                                                                                                                                                                                                                               313 LRHALLRLVCCGRHSCGRDPSGSQQSASAAEASGGLRRCLPPGLDGSFSGSERSS-PQRD 371
                                                                                                                                                                                                                                                                                                                                                                                                                 13 EVIVLHYNYTGKLRGARYQPGAGLRADAVVCLAVCAFIVLENLAVLLVLGRHPRFHAPMF 72
                                                                                   193 YVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRARRFRSLALLRT
                                         20;
          Length 381;
Query Match
41.7%; Score 842; DB 20; Length 38;
Best Local Similarity 47.3%; Pred. No. 1.2e-70;
Matches 176; Conservative 67; Mismatches 109; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAR14337
ID AAR1¢337 standard; Protein; 381 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            364 egdapetimssg 375
                                                                                                                                                                                                                                                                                                                                                                                                                                                            372 GLDTSGSTGSPG 383
```

à 셤 à 줘 ö 셤 ò 셤 RESULT 14

g ö

ò 셤

```
This amino acid sequence was deduced from the edg-1 gene sequence obtained from a cDNA library from human umbilical vein endothelial cells. The protein has seven alternating hydrophobic regions (transmembrane domains), each of which is flanked by hydrophilic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DNA molecule encoding immediate early gene protein - is expressed in endothelial cells during immediate early stage of differentiation in response to PNA or IL-1
                                                                                                                                                                                                                 /label = intracellular_domain /note = "rich in basic amino acids"
                                                                                                                 47..71
/label= transmembrane_domain-1
79..107
/label= transmembrane_domain-2
                                                                                                                                          transmembrane_domain-2
                                                                                                                                                                                                                                   256.277
/label- transmembrane_domain-6
294.314
                                                                                                                                                             transmembrane_domain-3
                                                                                                                                                                                                 transmembrane_domain-5
                                                                                                                                                                              transmembrane_domain-4
                                                                                                                                                                                                                                                               /label transmembrane_domain-7
                                                                                                                                                                                                                                                                                /label= N-glycosylation site
/note= "putative"
                                                                                                                                                                                                                                                                                                           /label= N-glycosylation site
/note= "putative"
                                                                                                                                                                                                                                                                                                                                        /label- Phosphorylation site
/note- "putative"
                                                                                                                                                                                                                                                                                                                                                                    phosphorylation site "putative"
                                                                                                                                                                                                                                                                                                                                                                                             /label= phosphorylation site
/note= "putative"
                                                                                                                                                                                                                                                                                                                                                                                                                          phosphorylation site putative"
                                                                                                       Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 3; Fig 5; 37pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        91WO-US02344.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           900S-0504800
                                                                                                                                                                                   /label= tr
160..185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (AMNA-) AMER NAT REDCROSS.
                                                                                                                                                   .140
                                                                                                                                                                                                                                                                                                                                                                                                                         /label- p
                                                                                                                                                                              /label=
                                                                                                                                                                                                                                                                                                                                                                    /label-
                                                                                                                                                                                                                                                                                                                                                                              /note-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 1991-325226/44.
N-PSDB; AAQ14147.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Maciag T;
                                                                                                                                                                                                                                                                     Modified-site
                                                                                                                                                                                                                                                                                                  Modified-site
                                                                                                                                                                                                                                                                                                                             Modified-site
                                                                                                                                                                                                                                                                                                                                                         Modified-site
                                                                                                                                                                                                                                                                                                                                                                                     Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                               Modified-site
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       04-APR-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          05-APR-1990;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17-0CT-1991.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO9115583-A.
                                                                                                             Domain
                                                                                                                               Domain
                                                                                                                                                 Domain
                                                                                                                                                                   Domain
                                                                                                                                                                                      Doma1n
                                                                                                                                                                                                        Domain
                                                                                                                                                                                                                                   Domain
                                                                                                                                                                                                                                                      Domain
```

```
Anglogenesis protein; AAA4; AAA1; Edg-1; tissue remodeling protein; alpha 5 beta 1 integrin; VIA-5; endomucin; matrix metalloproteinase 10; stromolysin 2; anglogenesis; immunostimulant; cytostatic; antidiabetic; ophthalmological; AMP inhibitor; anti-AMP antibody; gene therapy; DNA vaccine; cancer; proliferative diabetic retinopathy.
                                                                                                                                                                                                                                                                                                                                 193 YVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRARRKPRSLALLRT 252
                                                                                                                                                                                                                                                                                                                                                                                              316
                                                                                                                                                                                                                                                                                                                                                                                                                   LRHALLRLVCCGRHSCGRDPSGSQQSASAAEASGGLRRCLPPGLDGSFSGSERSS-PQRD 371
                                                                                                                                                                                                                                                                                                                                                                                                                                   73 LLLGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLSLLAIALE 132
                                                                                                                                                                                                                               133 RSLTMARRGPAPVSSRGRTLAMAAAAWGVSLLLGLLPALGWNCLGRLDACSTVLPLYAKA 192
                                                                                                                                                                                                                                                                                LSVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSLLNPIIYTLTNRD 312
                                                                                                                                         Gaps
                                                                                                                                                              EVIVLHYNYTGKLRGARYQPGAGLRADAVVCLAVCAFIVLENLAVLLVLGRHPRFHAPMF 72
                                                                                                                                                                                         81
regions except for the region between the 5th and 6th domains which is 1ch in basic and dibasic residues. In addition to the full-length G-protein coupled receptor, the invention also covers a protein which includes regions homologous to the transmembrane
                                                                                                                                                                             20;
                                                                                                                Length 381;
                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Angiogenesis protein Edg-1 protein sequence (Fig 13).
                                                                                                             ; Score 834; DB 12;
; Pred. No. 6.7e-70;
68; Mismatches 110;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAB70503 standard; Protein; 381
                                                                                                               41.38;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (EOSB-) EOS BIOTECHNOLOGY INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99US-0148425.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11-AUG-2000; 2000WO-US22061
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                     Matches 174; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    372 GLDTSGSTGSPG 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              364 egdnpet1mssg 375
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2001-191556/19
                                                                                                                           Similarity
                                                                           Ź
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO200111086-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   11-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            08-MAY-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15-FEB-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mammalian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Murray R;
                                                                                                               Query Match
Best Local S
                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAB70503;
                                                  domains
                                                                                                                                                                                                                                                                                                                                                                    253
                                                                                                                                                                                                                                                                                                                                                                                          257
                                                                                                                                                                                                                                                                                                                                                                                                                     313
                                                                                                                                                                13
                                                                                                                                                                                                                                                                                          142
                                                                                                                                                                                                                                                                                                                                                                                                                                             317
88888888
                                                                                                                                                                                      გ
                                                                                                                                                                                                                                     a
                                                                                                                                                                                                               ò
                                                                                                                                                                                                                                                                ò
                                                                                                                                                                                                                                                                                       g
                                                                                                                                                                                                                                                                                                                 ò
                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                    ð
                                                                                                                                                                                                                                                                                                                                                                                        셤
                                                                                                                                                                                                                                                                                                                                                                                                                   õ
                                                                                                                                                                                                                                                                                                                                                                                                                                          g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ద
```

```
The present invention describes a method (M1) for diagnosing anglogenesis (AG) comprising comparing expression of one or more genes (I) defined in the specification (preferably AAA4, AAA1, Edg-1, alpha 5 beta 1 integrin, condomucin or matrix metalloproteliase (I) or their fragments in a first itssue type of a first individual (WI) with the expression of gene(s) from a second normal tissue type from FI or a second unaffected in the expression indicates that FI has tissue that is undergoing AG. (I) can have immunostimulant, cytostatic, antidiabetic and ophthalmological activities, and can be used as angiogenesis modulator protein (AMP) inhibitors (e.g. an anti-AMP angiogenesis modulator protein (AMP) inhibitors (e.g. an anti-AMP diagnosing AG or AG disorders as well as screening for compositions which modulate AG. The AG polypeptides, nucleic acids and anti-AMP antibodies are an early an early and an early so an anti-AMP and an acceptance of the AG polypeptides, nucleic acids and anti-AMP antibodies are an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an early and an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               diabetic retinopathy. The antibodies are also useful for diagnosing AG from blood samples. The AG genes are useful for generating animal models of AG. The present sequence represents an angiogenesis protein which is given in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                252
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        256
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    73 LLLGSLTLSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLSLLAIALE 132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      201
                                                       Diagnosing angiogenesis by comparing expression profiles of genes derived from a first tissue type of a first individual with a second normal tissue type derived from the first individual or a second unaffected individual.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      13 EVIVLHYNYTGKLRGARYQPGAGLRADAVVCLAVCAFIVLENLAVLLVLGRHPRFHAPMF 72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RSLTMAREGPAPVSSRGRTLAMAAAAWGVSLLLGLLPALGWNCLGRLDACSTVLPLYAKA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             YVLFCVLAFVGILAAICALYARIYCQVRANARRLPARPGTAGTTSTRARRKPRSLALLRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LSVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSLLNPIIYTLTNRD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LRHALLRLVCCGRHSCGRDPSGSQQSASAAEASGGLRRCLPPGLDGSFSGSERSS-PQRD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       41.3%; Score 834; DB 22; Length 381;
46.8%; Pred. No. 6.7e-70;
:tve 68; Mismatches 110; Indels 20;
                                                                                                                                                                                                        Disclosure; Fig 13; 209pp; English.
N-PSDB; AAF74415, AAF74416.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity 46.8
Matches 174; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 372 GLDTSGSTGSPG 383
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   381 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         egdnpetimssg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  142
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               313
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         364
   ద
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    셤
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               à
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ð
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  윱
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ö
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ò
```

Search completed: January 16, 2002, 23:38:50 Job time: 3612 sec